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HAWAII
PAST AND PRESENT



Statue of Kamehameha I, Honolulu

HAWAII

PAST AND PRESENT

By

WILLIAM R. CASTLE, JR.

Author of "The Green Vase"

*With Illustrations
And A Map*

REVISED AND ENLARGED EDITION



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Co

MY FATHER

Lifelong friend of the Hawaiian People;
foremost among those who have laboured
for the upbuilding of the Islands—
his unselfish devotion is the
inspiration of his
children

PREFACE

THIS book has a double purpose: to tell those who stay at home something about Hawaii, the youngest of American Territories; and to help those who are going there to plan their trip intelligently. Baedeker has not yet extended his labours to the Pacific Islands, and no guidebook is available for the traveller. Many books have been written about special phases of Hawaii—its history or its commerce or its industry—but none has attempted to give concisely a survey of its history, its present conditions, and its natural beauty. This book, therefore, falls naturally into two divisions, the first part explanatory, the second, as well as may be, descriptive.

The information it contains has been gathered from most diverse sources, books, pamphlets, and even railroad folders, the whole checked by my own personal knowledge. The facts, I am sure, are accurate. The descriptions are largely from my own observations, and I have tried not to fall into the error of exaggeration so common in books of this kind.

The very comprehensiveness of the book has made it difficult to write. It would have been easy to devote all the space to discussion of industrial conditions, or of the Hawaiian people, or of the Volcano, but this would have been to write an essay

for specialists. It would have been still easier to tell of my own boyhood experiences, of *thrilling climbs over the mountains in search of land-shells*, of *amusing experiences on the funny little old inter-island boats*, but this would have resulted only in another "Diary," this time of a quite ordinary boy. I have tried, however, to keep myself in mind in so far as to tell things as I myself have seen them, expressing so far as possible in the descriptions my own feelings about the scenes described. And I hope the book may do something toward stirring in others an interest in Hawaii, an interest which, with fuller knowledge, must issue in something of the affection for the Islands that is felt by all of us who have there spent our childhood days.

I have drawn freely on Dr. W. D. Alexander's excellent book, "A Brief History of the Hawaiian People," and on Mr. C. W. Baldwin's clear and accurate "Geography of the Hawaiian Islands," and to the authors of both these books I want to express my thanks for the cordial permission they have given me to make use of the result of their study. Most of all I must thank my father, who has read my manuscript and who, from his almost inexhaustible knowledge of Hawaiian affairs, has made suggestions without which this book would hardly have been possible.

W. R. CASTLE, JR.

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HAWAII
PAST AND PRESENT

CHAPTER I

INTRODUCTION

AT the time of their annexation to the United States much was heard of the Hawaiian Islands as the Key to the Pacific, a name which, unlike most tags, seems to be a fairly accurate description. Situated between 19° and 23° north latitude and between $154^{\circ} 40'$ and 162° west longitude, they are at the junction of the principal steamer routes across the Pacific and indeed are the only land of any extent within a radius of two thousand miles. This situation gives them, inevitably, great strategic and commercial importance. To the north the nearest land is Alaska with the chain of the Aleutian Islands, 2,000 miles away; to the east, the North American Continent, 2,000 miles; and to the west, the Philippine Islands, 4,500 miles. Honolulu is distant 2,100 miles from San Francisco, 2,460 miles from Victoria, B. C., 4,700 from Manila, 3,400 from Yokohama, 3,810 from Auckland, and 4,410 from Sydney. It is served from San Francisco and the Orient by ships of the Dollar Line, and of the Toyo Kisen Kaisha of Japan; from British Columbia and Australia by steamers of the Canadian-Australian and the Oce-

anic Steamship Co. There are also local boats running between the Islands and San Francisco and Los Angeles. As the steamers on all these lines have adequate passenger accommodations and as the five or six day passage from California is usually smooth, the Islands are easily accessible, and, as their attractions become better known, will inevitably be more and more the resort of tourists.

The Hawaiian group consists of twelve islands, of which the principal, and indeed the only inhabited, islands are, in order of their size: Hawaii, Maui, Oahu, Kauai, Molokai, Lanai, Niihau, and Kahoolawe. They were formed by lava poured out from a fissure in the earth's crust which extended for about two thousand miles along the bottom of the ocean. To the northwest these lava mountains reached only to the surface of the water, just appearing in Midway, Nekkar, Ocean, and other islets and never forming important land until Kauai, the most northwesterly of the Hawaiian group, was built far above sea level. On this island the volcanic fires first went out and so were successively extinguished on island after island toward the southeast until Hawaii was reached. This island is still in the process of building. Erosion is therefore greatest on Kauai, and, with the exception of parts of those islands which have little or no water, least on Hawaii. All the islands of the group were originally lofty and

gently sloping mountains, but these have been worn by streams on the leeward side into deep ravines and valleys, and on the windward sides have been literally cut away by rains and winds, so that the mountains are now precipitous, rising from the sea in sheer cliffs, hundreds and even thousands of feet high.

Geologically the Islands are composed of two kinds of lava rock, one completely fused and very hard, the other only partly fused (tufa), which was thrown out by the ancient volcanoes in masses and in smaller particles. Tufa decomposes under the action of erosion much more quickly than does the solid lava, but this, after centuries of wear and tear by the weather and of being broken by the roots of plants that somehow find means of life even on very recent lava flows, makes a far richer soil. Where there is not too much rain it becomes a deep red earth, the best on the Islands for agricultural purposes except the sedimentary soil in the valley bottoms and along the coast. The only non-volcanic rock, a certain amount of sandstone and of coral, is the result of the uplifting of ancient reefs.

In climate the Hawaiian Islands are exceptionally favoured. The northeast trade winds blow for nine months in the year, and ocean currents, also from the northeast, further moderate the temperature so that it averages 10° lower than in any

other region in the same latitude, at sea level from 60° to 85° , with a mean of about 74° , and proportionally lower as one ascends to higher elevations. There are no cyclones, and thunderstorms are very rare. The rainfall is much greater on the windward than on the lee sides of the Islands, the average rainfall of Honolulu being, for example, 35 inches, and of Hilo, 150 inches. In some districts the average falls as low as two inches, and in some rises as high as 300 inches. This necessarily results in a much more luxuriant vegetation on the windward slopes, wherever excess of rain has not washed away the soil, but the mountain forests extend well down the southern and western slopes, and artesian wells, combined with an excellent system of irrigation, permit cultivation in almost all parts.

The flora is varied and very beautiful. There are, first, the indigenous plants, growing wild on the mountains, among them many ornamental and useful trees, such as the koa, or Hawaiian mahogany, which is extensively used for furniture, and the ohia, which is very hard, takes a high polish, and is used for furniture, floors, and panelling, as well as for railroad ties and permanent fence-posts. The koa is a wonderful golden brown in colour, full of light and shadows, and exquisitely grained. The ohia is darker, in texture more like the teak-wood of the Orient. The **second group**

of plants are those which were introduced from the south by early Hawaiian voyagers. Useful plants they were,—cocoanuts, bananas, bread-fruit, taro, sugar-cane, mulberries, and fibre plants for the manufacture of mats, ropes, and fish-nets. Of the third group are the plants now growing wild but introduced more recently from abroad, such as the guava, orange, mango, and algaroba tree, which last forms almost impenetrable forests near the seacoast. Every effort is being made by both Federal and Territorial officials toward intelligent conservation of already existing forests and toward reforestation. Many barren spaces have already been reclaimed with heavy planting of algaroba, eucalyptus, ironwood, and in the mountains with indigenous trees.

In animal life the Islands are not so rich. At the time of their discovery dogs, hogs, mice, and domestic fowls, beside wild fowls and migratory birds, were the only animals. Of reptiles there were only a few harmless lizards. Snakes were and are unknown. There were about seventy varieties of wild birds, however, many of which, owing to the recession of the forests, have become extinct. Insects, including the mosquito (the malarial mosquito is fortunately unknown), have since been brought in, and, with the careless introduction of foreign plants, certain blights, for which the natural enemies have been discovered

in time to prevent any wholesale destruction of vegetation. The most distinctive form of animal life, and the only one peculiar to the Islands, is the land-shells (*achatinella*), of which there are 800 species. These shells, which grow on the leaves and bark of forest trees, and on ferns, grasses and shrubs, are often exquisite in colouring. There are also unique ground shells.

The population of the islands has fluctuated greatly, decreasing from perhaps 250,000 in 1778 to 57,985 in 1878, since when it has steadily increased until at the present day it is approximately 200,000.* Of this number only 23,723 are of pure Hawaiian blood, with 18,027 of mixed Hawaiian and Caucasian or Asiatic blood. Of the remainder, 27,002 are Portuguese, 5,602 Porto Rican, 2,430 Spanish, 19,708 other Caucasian (principally American), 23,507 Chinese, 109,274 Japanese, 21,031 Filipino, and 5,608 of different or mixed races. In 1910, the native-born population numbered 98,157 and the foreign-born 93,752. From this table it is clear that the increase of population common to all the islands of the group has been principally due to the importation of labourers, since the Portuguese and Porto Ricans as well as the Orientals have been introduced to work on the plantations. Of these the Portuguese generally turn at last to independent agricultural pursuits, settle permanently in the country, and become

*Board of Health estimate, 1925.

good citizens. Many of the Orientals also become merchants or lease land to raise fruit or vegetables on their own account, but the great majority are a floating population who have left home only temporarily to earn money. An encouraging sign, except in one respect, is the steady growth of the native-born population. During 1924 the birth rate among all races except the Hawaiian was materially in excess of the death rate. But among pure Hawaiians there were, sadly enough, 791 deaths as against only 594 births, a decrease only partly compensated by the fact that of part-Hawaiians there were 1,346 births as against 284 deaths. The race, as a pure race, must inevitably disappear, but it may well be that the traces of Hawaiian blood in the future inhabitants of the Territory will add dignity and grace and gentleness. This seems now to be the case among those of mixed Hawaiian and Oriental lineage, and sometimes, especially among the women, is it true of the children of Hawaiians and Caucasians. The population of the Islands must always be very cosmopolitan, but this does not mean that they cannot be a strong outpost of American civilisation, since the climate, unlike that of the Philippines, for example, is wholly favourable to the growth of a preponderantly Caucasian population.

This very mixture of races makes the Islands,

from the point of view of the tourist, far more interesting than they would otherwise be. Most of the primitive Hawaiian life has disappeared for ever, and the people themselves are, of necessity, more sophisticated in outlook. They have, however, kept their simplicity of manner and with it many of the customs so deeply rooted in their nature. Their love of colour is ineradicable. Universally they wear wreaths or "leis" of flowers or of feathers. The women dress in the "holoku," a kind of Mother Hubbard gown that is often of bright red or blue or purple. Still, especially in the country districts, the men sit in front of their houses pounding "poi," the national dish. On holidays a cavalcade of riders passes, the women astride, wearing "paús," which are strands of brilliant cloth wound around the legs and streaming out behind the horses like wings. The fishermen cling to the picturesque but heavy dug-out canoe with its huge outrigger of lighter wood. Still, when a chief dies, the ancient wailing makes nights and days tragically musical. And when one does not see the Hawaiians themselves there are the Chinese and Japanese and Koreans to make one realise that Honolulu is also a gateway to the Orient. In the city are lines of deep, dark shops where Chinamen sit stolidly on carved teak-wood stools before their queer baskets and rows of lacquered boxes and rolls of silk; noisy corners



Hawaiian Grass House, Kona, Hawaii

where voluble Japanese congregate to bargain and to discuss excitedly all sorts of profound or trivial questions. The Oriental gardeners seldom any more peddle their attractive looking wares through the streets in open baskets balanced on poles but deliver them at the markets—lettuce and purple eggplant and white, twisted lotus roots, or little tins of the scarlet strawberries that fruit the whole year round. Or on the plantations one sees them—these sturdy men of the East—cutting the cane with long, keen knives and loading it on little cars to be carried to the mill; or in the mill itself, stripped to the waist, working among the great engines and vats; or, after work is over, playing the hose on each other, quite naked, before their cottages in the cool of the day. Even the Caucasians, the Americans and English and Germans, are obviously the denizens of another land. Their white linen suits and muslin dresses, their skins tanned with the tropical sun, the very freedom of their motions, differentiate them from their brothers and sisters in the north. But here there is no suggestion of illness, as in so many tropical countries. There is no fever in the clean trade winds. They are as sturdy physically as ever their fathers and mothers were at home. Their children do not have to be sent away like the children of those who are expatriated to India, but grow up as strong as the children of the home land. All this makes

them not restless sojourners in a foreign country, but rather adventurers who have found a new home and broader opportunity.

Hawaii is a land of law and order. Different as it may be in its outward aspects, one feels it to be essentially an outpost and a distant centre of American civilisation. Partly consciously, partly unconsciously, the missionaries saw to that. English is the official language, even though in the courts and in the legislature speeches are by courtesy translated into Hawaiian. The schools are conducted in English. American enterprise has built up the country, although much British and German capital is also invested. The Hawaiian people themselves have so absorbed the essential ideals of America that one feels the country, with all its superficially un-American traits, to rest on a thoroughly American foundation. The complexity of races gives a picturesqueness that is utterly absent from a blatant Western town. There is all the vigour of young American life, but with an added grace and stability brought about through contact with other more conservative peoples. The Islands give an admirable example of colonisation which has been able to inspire with its own ideals, its own strength, while it has not imposed such slavish following of externals as would destroy sense of individuality and as would cause irritation through forcing an alien race to

abandon customs that are not incompatible with progress.

Every American interested in the achievements of his own country ought to see this youngest Territory, since here, better than anywhere else, can he appreciate the assimilative and uplifting power of the best American traditions. It is, moreover, an older civilisation than that of California, more suggestive of the Atlantic seaboard than of the Pacific. And this is natural, since the first settlers, the missionaries, came from the Eastern States and came, moreover, not in a spirit of gain and of conquest, but for the express purpose of giving to a new land the best that they had known in an old one. They held fast to their own ideals, but were fortunately able to see that there might be other and different ideals which could exist side by side with theirs. It is true that they destroyed much that was picturesque. They insisted, for example, on trousers and skirts as a necessary adjunct of Christianity, but skirts and trousers, whether considered as insignia of Christianity or of decency, seem inevitably to follow in the wake of civilisation. Beyond this, however, beyond Christianising and educating, the missionaries were willing to admit that God made the climate and that neither tropical customs nor tropical architecture need conform strictly to those of New England. For a hundred years the predomi-

nant influence has been American, and it is an influence which has become the motive power of the land, so that we have really, to-day, a bit of America that is no less American because it holds as surface decoration some of the colour and some of the strangeness of other lands.

Add to all this, which might be called the intellectual interest of the place, a climate always mild, but never cruelly hot, such physical traits as superb mountains glowing with tropical colour, that spring straight from the shining sea, a varied and a beautiful flora, the greatest active volcanoes in the world, and there seems truth in the other name that has long been given the Islands, "The Paradise of the Pacific."

CHAPTER II

THE HAWAIIAN PEOPLE

EARLY Hawaiian history is entirely legendary. There was no written language, although certain crude outline pictures and characters, apparently depicting historical events, have recently been found. These, however, have not yet been deciphered. The history, therefore, can be traced only through ancient "meles" or songs, poems without rhyme or metre, but strictly accented and often several hundred lines in length, which were handed down orally for many generations. Every high chief had in his retinue professional bards who, like the minstrels of England, kept alive the traditions of wars and of heroes and who, as well, chanted love songs and dirges and composed poems in honour of the chief.

The Islands were settled as early as 500 A. D., a fact proved by the discovery of human bones under ancient lava and coral beds. The Hawaiian people are clearly of the Polynesian race, all branches of which can almost certainly be traced back to the Island of Savaii in the Samoan group. The Hawaiian language is but one dialect of the Polynesian tongue. Indeed, so similar are these

dialects that an intelligent man, well versed in Hawaiian, can understand almost everything said by a Maori of New Zealand. Not only the people, moreover, but the animals and plants in Hawaii, are related to the islands of the southern Pacific. This means that the early settlers must have come from the south and southwest, whereas the prevailing winds and currents are from the northeast. Wonderful this passage must have been in any case, across two thousand miles of open ocean in canoes; still more extraordinary when the voyage was made against winds and currents.

There were two periods of migration to Hawaii, but of the first there are few legends, although to it are ascribed certain temples and the great fish ponds along the coast of Molokai. In the eleventh or twelfth century intercourse with the south was renewed and in the songs are recorded many voyages both to and from Tahiti or Samoa, the voyagers travelling in fleets of canoes and steering by the stars. The canoes were probably built of planks, decked over, and large enough to carry a certain amount of live stock. For some unknown reason the period of this intercourse was very short. During the next five hundred years there are no legends of distant voyages, and ideas of any country beyond the Hawaiian group became indistinct. This time of isolation brought about,

naturally, fixed national customs and a very definite and individual national religion.

In ancient times the people were divided into three distinct classes, the nobility, the priests and sorcerers, and the common people, and between these classes were absolute and unalterable lines of demarcation. The chiefs, or "alii," were supposed to be descended from the gods and their office was, therefore, religious as well as political. So sacred were the highest chiefs considered that when they walked about the people all had to prostrate themselves. The courts comprised personal attendants of the chief,—men of high rank only on the father's side,—priests, diviners, storytellers, and dancers, who were trained to the art from infancy. The chief owned all the land and parcelled it out among the nobility, who, in turn, distributed it among the common people. As often as a chief died the land was redistributed. It was the feudal system in its most literal and oppressive form, the only check on the power of the nobles being that the people were not fixed to the soil, but might move from place to place at will, thereby entering the service of some other chief.

The priests, or "kahunas," were also a hereditary order exercising great power, not only because they were the medium of communication with the gods, but because they, only, knew anything of astronomy and medicine. The lower ranks of

priests were sorcerers, able to pray people to death—one of the few ancient beliefs still held by many Hawaiians. As to the religion itself, four great gods were worshipped in different ways by all Polynesians. According to the Hawaiian interpretation, which does not differ materially from others, the most powerful of these gods was Kane, the creator of the world. He with his brother Kanaloa once lived on the Island of Hawaii, where they made miraculously many of the springs; they also introduced the banana and other useful trees. Ku was a cruel god, delighting in suffering and human sacrifice. Lono, of a slightly lower rank, controlled the rains and had his own particular order of priests. In addition to these highest gods, all the forces of nature were deified; the air, the rocks, the trees, were the expression of invisible beings to whom reverence was due and who must at all times be propitiated. There were also gods of different localities, gods of different professions, gods living in sharks and lizards and owls. Most powerful among the minor deities, as might be expected in a volcanic country, was Pele, the goddess of fire. Near the volcanoes on Hawaii she was most feared, and constant propitiation was therefore necessary. She, with her sisters and her brother, lived in the volcano: “The roaring of the furnaces and the crackling of the flames were the music of their dance and the red fiery

surge was the surf in which they played." * There were malignant and friendly elves in the woods; there were demigods of every kind; there were deified ancestors. Not an act of daily life could be performed without reference to one or more of these divine beings. It was this far-reaching superstition that gave rise to the tabu system, one of the most elaborate devices of any heathen race.

This system was made up of minute regulations, infringement of any one of which was considered both as a sin against the gods and as a political offence, since the office of the chiefs was religious as well as secular. The following are a very few of these tabus, which are enough to indicate their general character: Men and women were compelled to eat in separate houses and women were not allowed to eat with men or to enter men's eating-houses on pain of death. For women, also, certain food, such as bananas, cocoanuts, and pork, was forbidden. A commoner was prohibited on pain of death from crossing the shadow of a chief—a law which must have been difficult to obey in the early morning or late afternoon. Certain nights of the month were tabu—the king spent the time in the temple, which was closed to all other persons, nor during those nights could women step into canoes. At certain tabu periods no sound could be heard, no fire could

* Ellis: "Tour of Hawaii."

be lighted; dogs were muzzled and fowls tied up in calabashes. For four days after the dedication of a temple there could be no fishing, no bathing, no pounding of poi, no work of any kind in the locality.

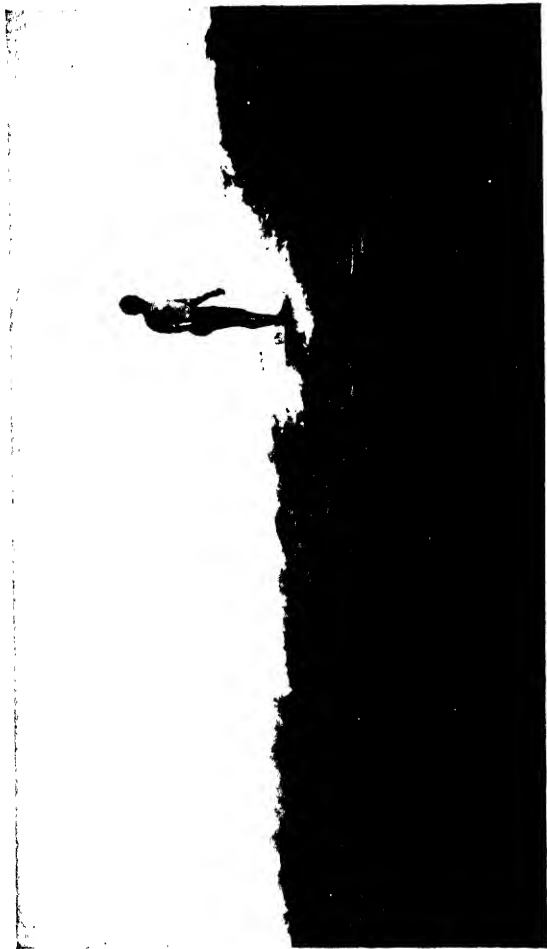
All this system was elaborated by the priests on the basis of tradition and was enforced by the chiefs. Connected with it was an equally complicated religious ritual. The more important temples consisted of great stone platforms surrounded by thick stone walls. The interior was often terraced and occasionally there was an inner court in which stood the principal idol. In the centre of the main court was the oracle, an obelisk of wicker work, within which the priest stood when acting as intermediary with the gods. In this court also were sacred houses in which the king and priests lived during periods of tabu. On the outer walls of the temple stood innumerable hideous images, probably intended as human scarecrows to frighten away the over-inquisitive. In addition to the temples were houses of refuge, to which criminals of any grade could flee and receive protection until the time of purification was passed, when they could go out under the care of the gods. The idols, after having certain ceremonies performed over them, became representatives of the gods and were reputed to have definite powers imparted by their respective deities.

Every family, moreover, had its private idol, the power of which was very limited as compared with that of the temple idols. The prayers composing the temple ritual were, like the songs, handed down orally through many generations. They were in reality charms rather than prayers, and had to be recited accurately to be effective,—a very difficult task, since they were so long that they often took hours to repeat and were in an ancient dialect not much more understood by the common people than in Russia is the old Slavonic tongue of the Orthodox ritual. Human sacrifice, the supreme act of worship, was reserved for the most solemn occasions only, such as the dedication of a temple, the funeral rites of a chief, or the launching of a war canoe. The victims, who were secretly slain by the Mu, the official executioner, were either prisoners of war or men who had infringed the tabu. Women, being inferior and therefore not worthy to be offered to the gods, were, in this instance at least, safe.

The common people, who were hardly more than serfs, had little to make life happy unless they were fortunate enough to be attached to a benevolent chief. All were liable to military service, and wars, after the beginning of the fifteenth century, were nearly continuous. Weapons consisted of long and short spears, daggers, clubs, and slings. There were no shields, but trained warriors be-

came very expert in warding off attack. Vancouver says that in a sham battle he saw "six spears cast at once at Kamehameha I, of which he caught three, parried two, and avoided the sixth by a quick movement of the body." After a battle it was customary to give no quarter to the defeated enemy. In spite of the wars, however, much time was of necessity given to peaceful pursuits. As there was no metal, tools were made of stone, or sharks' teeth, or wood, yet with these rude implements the people carried on extensive agricultural works, terraced the land when necessary, built irrigation ditches and tunnels, and constructed fields for the growing of taro. This was their principal crop, as it was, and is, the staple food. The best of it, and indeed the larger proportion, grows in fields which must be covered with water to the depth of a few inches and which must, therefore, be very carefully laid out. The root is boiled or steamed until soft, pounded with stone pestles into a paste, mixed with water, and allowed slightly to ferment. This is poi, the national food, very healthful, and, to those who are accustomed to it, very good. (It may be noted that the glutinous qualities are such that it is used also as a paste in hanging wallpaper.) In addition to taro, the ancient Hawaiians cultivated sweet potatoes, yams, and bananas. Of animal food they had only pork and dogs. Fishing was, therefore, a most impor-

Hawaiian Surf-Riding



tant industry, and the fishermen, who formed a class by themselves, were expert in the use of hook and line, net, and spear. Fish, too, were preserved in huge fish ponds, which were made by building rock walls, sometimes a mile or more in length, in rude semi-circles into the sea, each end resting on the shore. These walls were built close enough to prevent the fish from escaping, while the tide water could still pass through them. Some of these fish ponds are still in use, but the most interesting are the ancient ones, now, owing to the subsidence of the land, many feet under water, which one sees from the hills of Molokai. Fish, meat, and vegetables were prepared in underground ovens. Meat and fish were wrapped in leaves and laid on heated stones; water was then poured into the cavity and the whole covered, the food being cooked by steam.

Houses, varying in size according to the rank of the owner, consisted of rough wooden frames, tied together, and thatched over with grass or ti leaves. The doors were low and narrow and there were usually no windows. There was little or no attempt at ornamentation. To some extent the same style of house is used at the present day, and, like the peasant cottage of Brittany, seems the real expression of the land and of the native character. As one finds them occasionally on the southwest coast of the Island of Hawaii, nothing could be lovelier than one of these gray-brown huts,

with tapering cocoanuts at one side, a great mass of vivid green banana trees on the other, and behind, the red foothills. Civilisation seems to slip away and one is conscious only of the old man and the old woman sitting cross-legged in the sun, busy with the same primitive tasks that occupied their ancestors hundreds of years ago. For furniture they had only mats, those of finer quality spread over the sleeping-platform at the end of the room; calabashes and water bottles made of gourds, which were sometimes decorated by burning; and bowls and platters of polished wood. At night they burned kukui nuts (*Aleuritis moluccana*) for light. Their clothing was made of kapa, or, as it is usually called, tapa, a kind of paper cloth manufactured by the women from the bark of certain trees. This kapa was of different grades, some as heavy as leather, some as fine as linen. It was often dyed red, yellow, or brown, or was stamped with designs carved on bamboo sticks and dipped in the different coloured dyes. The women wrapped strips of it about three feet wide around the waist, and the men used it as a "malo" or loin cloth. It was also sometimes worn as a mantle by both men and women. This simplicity of dress was more than compensated by the national love of ornament. Both men and women wore wreaths of flowers or of bright-coloured feathers, or strings of orange-coloured

pandanus fruit on head and neck. The chiefs wore also hooks of walrus ivory suspended from the neck on braids of human hair. No costume could have been, after all, more appropriate than this brightly-dyed kapa and these brilliant flowers against the bronze skin, which seems in itself a dress.

The Hawaiians were a sport-loving people. Boxing, wrestling, foot racing, and bowling with polished stone discs were among the favourite amusements. Still to be seen, also, are the long slides on steep hillsides, down which they darted on wooden sleds. Swimming and diving were the delight of all, chiefs and common people, and surf riding remains to this day one of the favourite sports. It is this surf riding, as popular now with foreigners as with the natives, which makes Waikiki, near Honolulu, unique among bathing resorts. The surf rider takes a long, smooth, polished board and with it swims out a half-mile or so from the shore. He then lies flat on his board and swims rapidly toward shore until a roller catches the board and carries him on its crest to the beach. Expert surf riders can raise themselves to a standing position after the wave takes them and so ride, standing, for hundreds of yards, or as far as the wave will carry them. The game has all the excitement of tobogganing without the effort of dragging the toboggan uphill again, be-

cause the swim out to sea, diving under the waves as one goes, has almost the fun of the ride back. For those who cannot swim the tamer sport of surf riding in long Hawaiian canoes, the outriggers of which make an upset next to impossible, is a good substitute.

Like this sport, Hawaiian dancing and wailing for the dead remain to recall the older times. The dancing, or hula, has degenerated into something similar to the sensuous Oriental dance. The more stately ancient dances are rapidly being forgotten. When a chief dies the wailing is still heard,—a piercing, rythmical lamentation, lasting for hours or even days within and around the house of the dead. It can never be forgotten, and somehow, after one has heard it, one seems to recognise always, even in the love songs that are chanted in the moonlight outside of hotel windows, a strain of the same hopeless sadness which is so fully expressed in the dirges. And yet this music is a modern thing. The first “Hawaiian song” was written about 1868. The old music consisted in a gamut of only four notes, used exclusively in guttural chants, and one of the hardest tasks confronting the missionaries was to teach the people to sing. When the four-note limit was reached they only sang louder, instead of higher or lower.

The Hawaiian race is passing. No one knows when the number of inhabitants was greatest, but it is certain that the continuous wars which rav-

aged the country for two centuries and over before its discovery by Captain Cook had already reduced the population by a large proportion. Foreigners—even Captain Cook's own crew—introduced diseases unknown before. The people had never been moral according to Anglo-Saxon standards, the marriage tie being of the loosest, polygamy a common practice, and fidelity an unknown virtue. This meant that the diseases of civilisation could do their worst. What made the situation even more deplorable was the almost complete lack of medical knowledge. It is true that the uses of certain herbs were understood, but sickness, according to the common belief, was caused by evil spirits and its cure was in sorcery. Relatives of the sick man made offerings for him. If this did not prove effective the sick man himself, whatever his disease, was given a steam bath and then dipped in the sea, or was made to eat pieces of squid. The sorcerers, however, were more often employed to make men sick than to relieve suffering, and so absolute was the belief in evil spirits, so powerful the imagination, that they were usually successful. A man who knew that a kahuna was praying him to death promptly died. The wonder is, not that the population declined, but that it did not decline even more rapidly.

At the time of the discovery of the Islands the native population numbered, according to Cook, 432,000, but on what he based his data is not

known; 250,000 is probably nearer the truth. To-day there are about 24,000 pure-blooded Hawaiians, about 40,000 including the part-Hawaiians. The race, already decimated by war, decreased rapidly under the scourge of measles, smallpox, venereal diseases, and strong drink. Now that there is adequate medical knowledge, and with the protection given to the Hawaiians by the better class of white people, the race might again increase were it not for intermarriage and infant mortality. So general is this intermarriage that, although the number of those with Hawaiian blood is greater with every census, the number of pure-blooded natives proportionally decreases. It is a question of only a few generations before the Hawaiians, as a people, will be only a memory, just as their language will soon be extinct as a pure tongue.

And in many ways this disappearance of the race is sad, for the Hawaiians are a people with a past that is often noble. In spite of their weaknesses and their follies they are very lovable. The best of them are physically admirable, tall, well-formed, with high foreheads, good features, deep chests, slender limbs. In colour they are something like the American Indian, although not as red, and their high cheekbones and straight hair accentuate the resemblance. There is nothing

about them to suggest the negro, and they themselves consider him as an inferior being. Their manners are excellent, their motions graceful. Among the higher ranks, of whom the Queen was a good example, there is a courtliness of demeanour which recalls the salons of the old European aristocracy. They carry themselves well, walk firmly and lightly. Nothing could be more physically beautiful, more harmonious in line, than a Hawaiian fisherman, naked except for his loin cloth, as he stands poised on a rock ready to cast his net. He is classic in the moulding of his form, in the perfection and symmetry of his muscular development, insistently reminiscent of some Greek bronze of an athlete stripped for the games.

The Hawaiians are also an intelligent people, so that teaching them is a pleasure. Nor are they merely imitative. They make good teachers in the schools, good overseers on the plantations. They never steal. They are honest and trustworthy. They are affectionate and grateful for kindness. Like children, however, they are emotional and easily led, voting often, for example, against their principles on the advice of some unscrupulous agitator and keenly regretting afterwards what they have done. They are now, as they always have been, abnormally fond of games of chance, and in the excitement of the moment will wager

everything they possess, which, fortunately for them and unfortunately for "beasts of prey," is usually very little. Their most besetting sin is what might be called moral laziness. On the plantations, for instance, they make splendid workmen, accomplishing in a day, if working by the job, twice the amount of hard labour that a Japanese is willing to do, but when pay day comes they go home and, forgetting to return in the morning, fish a little, sleep and eat a great deal, until their money is exhausted and their credit gone. Then, with perfect cheerfulness, they go back to work. According most satisfactorily with this habit is the ancient custom, loyally adhered to even at present, of dependence on a chief. The Queen had very many who looked to her for food and shelter because their ancestors looked to her ancestors, and she, as loyal to custom as they, supported them out of her meagre resources.

It is often said that, except in case of intermarriage with the Chinese, the mixture of Hawaiian with foreign blood does not result well. This is no place to discuss the ethnological significance of mixed marriages, but the facts would seem to show, in the case of part-Hawaiians at least, that the early environment of the children was of more importance than their blood. The Chinese who married a Hawaiian woman was usually a hard working man, a good family provider, who brought up his

children as well as he could. The Caucasian who married a Hawaiian was, on the contrary, generally a shiftless ne'er-do-weel, in the early days hardly more than a beach-comber. His children grew up as best they might. They were, as a rule, more energetic than their fathers and more intelligent than their mothers, but their good qualities never had an opportunity to develop. Where early environment has been good the children have usually responded well. There are many part-Hawaiians in important public and private positions, but they are the exception rather than the rule. They have had their opportunity and the others have not. This makes even sadder the breaking up of the race because too often the moral weakness is noted and imputed to the native blood, not the physical strength; the love of gambling, not the natural honesty; the vacillation, not the loyalty; the trickiness, not the childlike simplicity. Yet in most cases these unamiable qualities are the result of early environment and the direct inheritance from a useless father. An ethnologist a few generations hence, in attempting to reconstruct from their mongrel descendants a picture of the ancient Hawaiian race, will be in danger of making them a people despicable and thoroughly degraded. Those who have known them in their integrity, like children faulty and volatile, but like children eager to be taught and susceptible to

every good influence, will no longer be there to defend them. The man who would see the remnants of a genial, kindly, affectionate race must see them now or never.

CHAPTER III

HISTORY TO 1898.

FROM the time of settlement to about the end of the thirteenth century the Hawaiian Islands, divided almost from the first into independent kingdoms, seem on the whole to have been peaceful. From this time on, however, strife became more and more general, and after 1450 A. D. there were continual wars, which had the inevitable effect of lowering standards, materially, as well as intellectually and morally, and also of seriously decreasing the population. Many and barbarous were the battles and, as no quarter was given the conquered, whole districts were devastated and depopulated. One chief after another, arrogant and rapacious, led his brutal army from district to district, from island to island. Sometimes a chief gained control of a large part of the group, only to lose what he had conquered through successful rebellion during his own lifetime; surely, so far as the establishment of a dynasty was concerned, to lose it when, after his death, quarrels broke out as to redistribution of land among the competing nobles. In November, 1736, during one of these ferocious and unnecessary civil wars,

Kamehameha I was born, but before his work of uniting the country under one sovereign was begun, the Islands were discovered by Captain Cook.

From old maps it is clear that the Spaniards had known as early as the sixteenth century that there was land somewhere in the vicinity of the Islands, but the world had no information as to its exact position and extent until Captain Cook, on a voyage of discovery to the northwest coast of America, sighted the Island of Oahu on January 18th, 1778. He saw soon afterwards the Islands of Niihau and Kauai, and landed at Waimea Bay on the latter island on the 20th. He then sailed to Niihau, where he spent a week taking on provisions and water, and trading. The general impression among the natives seems to have been that Captain Cook was a reincarnation of the god Lono, and that his crew were supernatural beings. Runners, who sailed in the swiftest canoes, and ran from end to end of the successive islands, were sent to carry to the different chiefs the news of these strange arrivals. This is a translation of their message: "The men are white; their skin is loose and folding; their heads are angular; fire and smoke issue from their mouths; they have openings in the sides of their bodies into which they thrust their hands and draw out iron, beads, nails, and other treasures, and their speech is unintelligible. This is the way they speak: 'a hikapalale, hika-

palale, hioluai, oalaki, walawalaki, waiki poha.'''* Apocryphal as this account may conceivably be, it differs from similar accounts in history and fiction of the effect produced on the savage mind by the first sight of civilised white men, in the extraordinary and probably authentic exposition of the English language as it sounded to the astonished ears of the Hawaiians. It will be noted that no letters are used which are unknown in the native tongue.

In the following November Captain Cook returned, and, after cruising about among the Islands, in January set up winter quarters for purposes of trade and for making observations, at Kealakekua Bay, on the southwest coast of Hawaii. The priests constituted themselves his bodyguard, offered sacrifices to him in the temple, and made the people worship him as a god. Large quantities of provisions were supplied and there was no more question of payment than there would have been for offerings made to any other god. But in this case the offerings were in large quantities and were continuous, so that, after the novelty had worn off, the heavy tax began to make the people restless. The outrageous conduct of the crew, also, over whom there seems to have been no control, disgusted them, and only their

*Alexander: "Short History of the Hawaiian People," p. 107.

terror of the priests kept them in subordination. The departure of the strangers, therefore, after about three weeks, was a time of great rejoicing among the natives—a joy unfortunately short-lived, as the ships ran into a severe storm and were compelled to return for repairs. The reception this time was very different. The priests were still faithful, so provisions were grudgingly supplied, but the people were convinced that the white men were not gods, treated them with contempt, and finally became so bold as to steal a ship's boat. In the fighting which ensued Captain Cook was killed by being stabbed in the back with an iron dagger. His body was held by the natives and was that night given formal funeral rites. His bones were deified. There is no doubt that in this last affray the natives were the aggressors. There is also no doubt that, had the sailors been kept in check and the people been treated with decent consideration, the final tragedy would not have occurred. Stories, believed at the time and by many believed to this day, that Captain Cook's body was eaten, are absolutely groundless. The Hawaiians were never at any time in their history cannibals.

Captain Cook named this new land the Sandwich Islands, in honour of his patron, the Earl of Sandwich, but it was a name never adopted officially and is gradually falling out of use the world



Ascending Pali Road Six Miles N. E. of Honolulu

over. The discovery of the Islands was the inauguration of a new era in Hawaiian affairs. Their isolation was over. New forces were henceforth to control their destiny, but it is sad that the first gift of the white men was disease and that the feeling for them left in the minds of the natives was one of fear mingled with contempt.

The history of the next thirty years is the story of the gradual conquest of the Islands by Kamehameha. Left, on the death of the old King, as second in power on the Island of Hawaii, he was soon involved in one of the endless civil wars, and after many reverses succeeded in making himself the most powerful chief in the island, not even excepting the King, to whom he was nominally subject. In 1790 a great eruption of Kilauea, which destroyed a large part of his rival's army that was actually marching against him, convinced Kamehameha that the goddess Pele was on his side. It was, however, not a brilliantly successful battle, but an act of gross treachery, culminating in the murder of the King of Hawaii, which gave him the sovereignty of the island. In 1795 dissensions in the leeward islands made Kamehameha believe that the time had come to carry his conquests across the water. Tradition reports the strength of his army as 16,000 men. Maui he took with comparative ease, and Oahu after a fierce struggle in Nuuanu Valley, where the survivors of

the opposing army were driven over the precipice at the head of the valley. The invasion of Kauai was prevented once by a storm which destroyed many of the canoes which had already set sail, once by a pestilence which carried off half of Kamehameha's army. The island was finally, in 1810, voluntarily ceded by its king, who was, however, given permission to hold it in fief during his lifetime on condition that he make Liholiho, Kamehameha's heir, his successor. The conquest of the Islands was greatly facilitated by the facts that Kamehameha was superior to other chiefs in the number of his firearms and that he had in his service two or three intelligent white men.

After the death of Captain Cook the Islands were visited by successive expeditions, among them those of the well-known navigators, Portlock and Dixon, and La Pérouse, both in 1786. Captain Mears in 1787 took a high chief, Kaiana, a friend of Kamehameha, on a visit to China. On the whole, explorers were friendly, but when the captains of ships visiting the Islands did not treat the natives fairly reprisals were often severe. Thus, for example, in 1789, a sloop, the *Fair American*, was captured and the crew killed. The sloop was for years used by Kamehameha. Firearms were obtained by barter and sometimes by theft. One explorer, Captain George Vancouver, who had been sent out by the

British Government, made three visits to Hawaii and has always been considered a benefactor of the Hawaiian people. He refused to sell firearms; he gave much good and sadly needed advice; he tried to act as mediator between warring factions; and landed cattle, which had been hitherto unknown, but which now increased rapidly and were of great benefit to the people. He it was, also, who superintended the construction of the first vessel built in the Islands, the *Britannia*, which formed an important addition to Kamehameha's little navy. At his instigation a council of the chiefs was held in 1794, at which it was determined to place the Islands under the protection of Great Britain, and in February of the same year the British flag was hoisted. If England had ratified this voluntary cession the subsequent history of the group would have been very different.

After the conquest of Oahu in 1795 Kamehameha's chief work consisted in consolidating the government. All the power he centralised in his own hands. He broke up the dangerous influence of ambitious chiefs by apportioning to them land in small scattered parcels instead of assigning whole districts, as had been the custom, and by keeping the more turbulent at the court as his personal attendants. He promoted agriculture by every means in his power, and so sternly reproved and punished crime that serious offences became

very rare. He made intelligent and successful efforts to win the approval and co-operation of foreigners. He supported rigorously the whole, complex mass of the ancient tabu system, which was probably wise, since there was nothing as yet to replace the old religion, and the tabus were of great service to him in upbuilding and perfecting the power of his own personal rule. He was eminently judicious in the choice of his counsellors and in his appointments. He left to his successor a consistent, efficient governmental system, so thoroughly centralised, its power so impressed on the minds of the people, that even a weak king and the sweeping changes of the next few years did not affect its stability. For his power as a warrior, still more for his sagacity as a ruler, Kamehameha I is rightly considered the greatest of the Hawaiians, and under similar conditions would have been a great man in any country.

At the time that the internal affairs of the Islands were being put on a stable basis their opportunities of contact with the outer world became more frequent and their foreign relations more important. During the first quarter of the nineteenth century there grew up a large trade in sandal-wood, which was bought at a preposterously low figure, while at the same time foreign articles were sold in Honolulu at exorbitant prices. The sandal-wood trade was so

extensive and was carried on with so little thought of the future that the trees were practically exterminated and are even now very rare. Vast quantities of rum were imported and stills for the manufacture of a crude liquor, which was practically all alcohol, were set up on the different islands, doing untold injury to the natives. At this time also the Russians carried on an extensive trade with the Islands and took an interest in the country apparently dangerous to its independence. One trader went so far as to build forts and to hoist the Russian flag, a proceeding which was naturally intensely irritating to the King. To insure the safety of Honolulu a fort was constructed in a position commanding the harbour. This old fort was long since destroyed, but has left its name in Fort Street, which once led to it and is now the principal business thoroughfare of the city.

Immediately after the death of Kamehameha I the whole tabu system fell to pieces and with it went the ancient religion, in which the majority of the people had long since ceased to believe. There were, as might have been expected, some few who at first refused to give up their gods, but it is probable that even these were actuated largely by political ambition, not by any real faith; there was fighting in several places, but the new King and the Queen Regent soon put down this incipient

insurrection. In general the fervour of renunciation was such that the chief priests themselves set the example of burning the idols, and so complete was the holocaust that but very few were saved. Even the museums have found it difficult to obtain fair specimens of ancient Hawaiian idols. Outwardly the destruction of the old religion was complete, but certain superstitions were too deeply rooted in the national character to be quickly eradicated and have for generations influenced the lives of the people, even affecting their understanding of the dogmas of Christianity. It is, however, fair to say that in 1819 Hawaii was a land absolutely without a religion. The destruction of the idols came about through realisation of their impotence, as manifested in the freedom from punishment of foreigners who made mock of the tabus and who desecrated the temples. This voluntary abolition of the old religion made much easier the task of the American missionaries who arrived a year later.

The coming of the missionaries was the real beginning of civilisation in the Islands. Up to 1820 the outside world had given the Hawaiians little beside trinkets, firearms, rum, and more expert methods of deceit. Now it was to give to them their part in the civilisation of Western nations, to teach them that this involved the acceptance of new and higher ideals of conduct, of a

religion to replace their outworn superstitions; that it meant a life regulated according to civilised law. The missionaries undoubtedly went to Hawaii fired with the desire to save souls in danger of eternal damnation. They seem very quickly to have realised that wholesale baptism, misunderstood, was less important than a general quickening of spirit, a training in the decencies of life. They never neglected the religious side of their teaching, but they also never neglected the secular side. They learned the Hawaiian language; they reduced it to writing and imported printing presses; they did their best as doctors and taught the elementary rules of health. At first only permitted to land on sufferance, they soon became of prime importance to the chiefs, and were their advisers on almost all questions. It is fair to them to say that if this function seemed an undue extension of their religious duties—and their severest critics never accuse them of anything else—they were the only foreigners in the Islands who would advise the chiefs impartially, and the only ones, moreover, who would have advised in such fashion as to save the dwindling remnants of the Hawaiian race. They were pioneers seeking results in better men, not in riches for themselves; they were trying to give the people their own standards of decency and honour. This soon resulted in bitter opposition from the foreign riffraff who infested

the Islands, and especially from the ships that called more and more frequently.

It was the fixed belief of ship captains in those distant days that no laws, whether of God or man, were in force west of Cape Horn. The call at Hawaii for water and provisions was most of all an opportunity for debauchery and unchecked crime. Hawaiian women were sometimes captured and carried off on cruises to the North. When a whaler appeared off the coast many of the native women fled to the mountains as their only sure protection. It is easy to understand, therefore, that when the King promulgated laws against immorality, laws evidently intended to be enforced, the whaling crews considered themselves cheated out of their rights and turned with rage against the missionaries, whom they correctly held to be responsible. In more than one instance brutal attacks were made on missionaries in isolated stations, who were saved only by the devoted natives. It is sad to think that the commander of a United States frigate was among the most insolent in the demand for the repeal of these laws against vice, and that he permitted his men to attack both the house of a chief and the mission premises in Honolulu for the purpose of frightening the Government into submission. Drink was carrying off the Hawaiians by hundreds, and when, in recognition of the danger, a heavy duty

was laid on spirits, it was the commander of a French frigate who gave the King a few hours to decide whether he would abolish the duty or undertake a war with France. These outrages and many others of a similar kind directed against efforts really to uplift the country were seconded by a party in Honolulu, a party, unfortunately, headed by the British consul who was for years allowed to retain his post in spite of repeated protests and requests for his removal on the part of the Hawaiian Government.

Internal affairs, in the meantime, had been ably managed by the Queen Regent, Kaahumanu, who was a wife of Kamchameha I. The King, Liholiho, or Kamehameha II, was weak and dissipated and finally died while on a trip to England. The Queen Regent held the power until her death, and then appointed Kinau, a daughter of Kamehameha I, who, although an able woman, was not as forceful as Kaahumanu, to succeed her during the minority of the young King. It seems to have been a well-established custom to have a woman hold, with the King, the regal power. Kamehameha III also was inclined to be of weak moral fibre, and every effort was made by the lower class of foreigners to destroy his health and to subvert his vaguely good intentions by leading him into every form of dissipation. He was, however, protected, as his predecessor had not been, and his long reign

(1824-1854) was, on the whole, a time of prosperity and of rapid progress. Education became general, laws were fixed, the troubles concerning the Roman Catholic religion were brought to a satisfactory conclusion by an edict of general toleration. These troubles, which at one time threatened to produce international complications, the King refusing to permit Catholic missionaries to land, were occasioned largely by the fact that Hawaiians had been accustomed for centuries to look on religion as an integral part of the Government and, therefore, to consider a man who professed a different creed from that of the King as necessarily a rebel. To Kamehameha III also is due the credit of giving to the kingdom a liberal constitution, which allowed it to be ranked in the company of civilised nations.

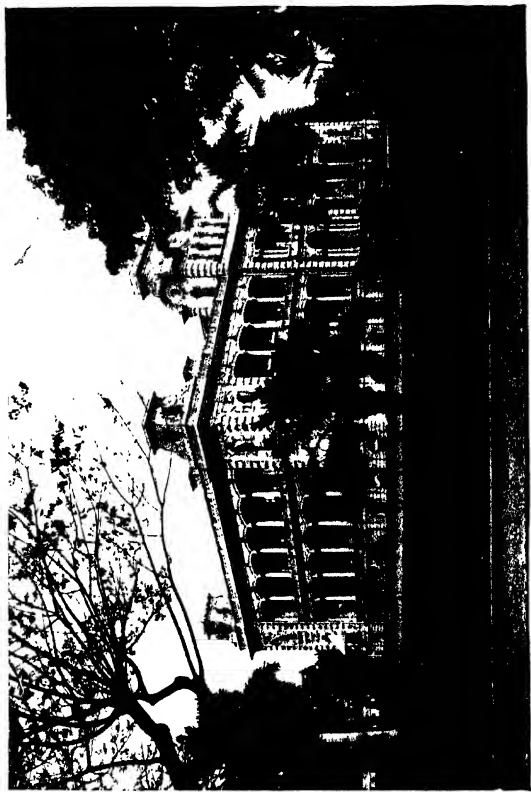
It was during this reign that a great impetus was given to the development of property by the enactment of laws concerning private ownership of land, which laws finally did away with the ancient theory that the title of all lands rested in the chief. A land commission decided that one-third of all the land was the property of the King, one-third the property of the chiefs, and the final third of the common people. The King, a few days after this decision, turned over half of his share to be forever used as Government land, his own portion being called the Crown land. As many

of the chiefs followed his generous example, the Government came into possession of nearly a third of the land of the Islands. The land commission also undertook the arduous task of proving claims and issuing titles. It being now possible to hold real property in fee simple, to buy it and to sell it, men who were at last owners instead of merely tenants were willing to make extensive improvements. Foreigners also were able to acquire land and were no longer considered as sojourners at the will of the King.

Another important achievement was the success of the King's commissioners in obtaining definite recognition of Hawaiian independence by England, France, and the United States, Daniel Webster stating on behalf of the United States that "the government of the Sandwich Islands ought to be respected; that no power ought to take possession of the Islands, either as a conquest or for the purpose of colonisation; and that no power ought to seek for any undue control over the existing government, or any exclusive privileges or preferences in matters of commerce." News of this foreign recognition was not received, however, before Lord George Paulet, commanding H. M. S. *Carysfort*, had provisionally annexed the Islands to Great Britain. He acted arbitrarily on the instigation of the deputy of that indefatigable troublemaker, the British consul, who, after this episode,

was finally removed. The alleged reason for the annexation given by Lord Paulet was the unwillingness of the Hawaiian Government to settle certain disputes in favour of British subjects. The King, refusing to accede to any further demands, said, "I will not die piecemeal; they may cut off my head at once." The lowering of the Hawaiian flag and the hoisting of the British flag in its place occurred on February 18th, 1844, and for five months the Islands were governed by a British commission. In July Admiral Thomas, in command of Her Majesty's forces in the Pacific, arrived in Honolulu, and with all possible ceremony promptly restored the Hawaiian flag. The open space east of the town, where the restoration was made, was set aside as a public park and is called Thomas Square. It is interesting to note also that in a speech at a great meeting of thanksgiving and rejoicing in the afternoon the King used the words which were afterwards adopted as the national motto: "Ua mau ke ea o ka aina i ka pono," meaning "The life of the land is perpetuated by righteousness." Except for an absurd and meaningless occupation by France for a few days in 1849, the autonomy of the Islands was never again questioned.

At this time the different departments of government, executive, legislative, and judicial, were created in substantially the form that they held



Executive Building, Formerly the Royal Palace, Honolulu

until the end of the monarchy. Trade increased rapidly, and the sudden growth of California gave a new and more easily accessible market. The tragedy of this reign was the continued rapid decrease in the population, measles and smallpox carrying off thousands of the natives.

During the reign of Kamehameha IV (1854-1863) the Queen's Hospital was established in Honolulu. At the request of the King an English bishop was sent to Honolulu as the royal chaplain, this being the beginning of the Anglican mission. The Prayer Book was admirably translated into Hawaiian by the King himself. Many public improvements were carried out, such as the deepening and enlarging of the harbour of Honolulu and the introduction of rice as an agricultural crop. The reign began with every promise of good, but the King, broken in health with sorrow over the death of his only son, became more and more feeble and died when only twenty-nine years old.

During the reign of his older brother, who succeeded him as Kamehameha V, a board of education and a bureau of immigration were inaugurated, and the introduction of foreign labourers through the agency of the latter was a great stimulus to agriculture. The production of sugar and rice made great strides. The leper settlement was started at Molokai, to check if possible the dreadful disease, which had been brought in, prob-

ably from the Orient, about 1850, and was spreading among Hawaiians in an alarming manner. The Islands were made more accessible by the starting of a line of steamers between San Francisco and Australia which made Honolulu a port of call.

With the death of Kamehameha V, after a short reign, the old royal line came to an end. The King had not exercised his right of appointing a successor and, therefore, a general election was held, in which Prince William C. Lunalilo, who was considered the chief of highest rank in the Islands, was elected as sovereign. He died a year later, not neglecting to appoint his successor, but declaring that the King ought to be elected by the people.

In 1874, therefore, David Kalakaua, also a high chief, was elected to succeed him. The triumph of his reign was the securing of a treaty of commercial reciprocity by which Hawaiian sugar and a few other products were admitted free of duty into the United States. In return Hawaii made a general remission of duties, and later gave to the United States the exclusive use of Pearl Harbour, as a coaling or naval station. This treaty assured the prosperity of the Islands and marked the definite establishment of the sugar industry. Labourers were imported from China, Japan, the Azores, and Maderia. From these At-

lantic islands over ten thousand Portuguese migrated to Hawaii, where climatic conditions were similar to what they were accustomed to and where opportunities for remunerative industry were greater. King Kalakaua was, however, unable to read the signs of the times in the rapid decrease of the native population and in the even more rapid increase of the foreign population, and was determined to restore to his government much of the autocratic royal authority that had been voluntarily ceded in the constitution given by Kamehameha III. So strained did popular feeling run that in 1887 there was a bloodless revolution, in consequence of which the King was forced to sign an even more liberal constitution, that made the cabinet responsible only to the legislature, and that prevented the legislators from holding any other office. This reform, which was bitterly opposed by the personal adherents of the King, led two years later to an insurrection, in which the King himself, however, took no direct part, and which was promptly quelled, with the loss of seven men among the rebels. Kalakaua was a picturesque figure, personally affable and intelligent. On a trip around the world, ostensibly to look into the question of the importation of labourers, he was everywhere treated with royal honour, was universally liked, and was given the most friendly aid in collecting information for the good of his

own kingdom. In a book entitled "Around the World with a King," this tour has been most amusingly treated, although, it must be admitted, with ungenerous sarcasm, by Mr. W. N. Armstrong, who accompanied him as Commissioner of Immigration.

Kalakaua died in San Francisco in January, 1891, and his body was brought to Honolulu in the U. S. S. *Charleston*. His sister, Liliuokalani, whom he had nominated as his successor, was immediately proclaimed Queen. Even more than her brother had been was she, unfortunately, eager to remove the constitutional restrictions on the power of the Crown, and her wishes were fervently seconded, if not actually induced, by unscrupulous advisers, who saw in any political upheaval opportunities for their own aggrandisement. Political intrigue became the business of certain ambitious foreigners and Hawaiians of mixed blood, whose purely selfish purposes were evident from the fact that when the Queen was not with them they intrigued with unabated ardour against her. It was significant that the best of the Hawaiians, as well as the better element of the white population, stood aloof from the struggles. During the last week of the long legislative sessions of 1892 two obnoxious bills were passed, one licensing the sale of opium, one granting a franchise to establish a lottery. Public feeling was intense, and

when it became known that a new constitution, doing away with all restrictions on the royal authority, limiting the franchise to Hawaiians, and destroying the guarantees of the judiciary, had been drawn up and was about to be promulgated, the leading citizens saw that decisive action had become necessary. On January 17, 1893, a Provisional Government, having general legislative authority, was established. Unfortunately, troops were landed from the U. S. S. *Boston* to protect the lives and property of American citizens, an act that later gave to the royalists the claim which so appealed to President Cleveland, that the royal government had submitted only to the forces of the United States. Alleging this landing as a reason, the Queen surrendered her authority under protest, pending her appeal to Washington. A commission of the Provisional Government was immediately sent to the United States to negotiate a treaty of annexation. Such a treaty was actually drawn up by the Secretary of State, signed, and submitted to the Senate. It was not acted upon before the end of the session, but in the meantime a Provisional Protectorate of the Islands was proclaimed. President Cleveland, immediately after his inauguration, withdrew the treaty from the Senate, sent his personal representative to Honolulu* to take evidence, declared the protectorate at an end, and later urged the

*Blount's status was exactly that of John Lind in Mexico.

restoration of the Queen. To this, however, the Provisional Government refused to accede, and, as annexation seemed indefinitely postponed, took immediate steps toward the framing of a constitution. On July 3, 1894, the Republic of Hawaii was proclaimed, with Sanford B. Dole, a man who throughout his life had been identified with all that was least partisan and most upright in the Islands, as the first President.

In 1895 there occurred an insurrection, again planned by the disaffected part-Hawaiians rather than by the full-blooded natives. It was put down with the loss of very few lives, but resulted in a trial for treason of the Queen and nearly two hundred others, to all of whom conditional pardons were granted. This ended the internal troubles of the Republic, but complications with Japan concerning immigration grew more and more difficult to cope with, and the only safety seemed to be in annexation to the United States. Negotiations to this end were renewed immediately after the inauguration of President McKinley. Whether these negotiations under ordinary circumstances would have been more successful than were their predecessors is a question, but during the war with Spain the strategical importance of the Islands to the United States becoming evident, a joint resolution of annexation was put through Congress on July 7, 1898. This was accepted by

the Government of the Republic of Hawaii and annexation became an accomplished fact on August 12th. Hawaii ceased to exist as an independent nation and became an integral part of the United States.

CHAPTER IV

HAWAII AS A TERRITORY

UNDER the Republic of Hawaii many Hawaiians had refused to take the oath of allegiance and had, therefore, been unable to vote. Even the most intractable saw, however, that no dissatisfied element in a United States Territory would have the remotest chance of carrying through a revolution. Restoration of the monarchy suddenly became a dead issue. But to the leaders such restoration had never been more than an incident in the scramble for personal power and, instructed by Americans even more frankly rapacious than they were themselves, they saw in the control of the Territorial Government political opportunities that were well worth seizing. The Governor was appointed by the President. That office was, at least for the moment, therefore, out of reach, but the election of a delegate to Washington and the control of the home legislature were both worth striving for. A so-called Home Rule party was promptly formed—the meaningless name was intended to catch the ignorant and disgruntled—and all Hawaiians were

urged by the agitators to cast their votes in the coming elections. The victory of the new party was overwhelming. It controlled the legislature and it sent as Congressional Delegate Robert Wilcox, a confirmed intriguer, who had in the past plotted against nearly everything, including the monarchy itself, and who had led the abortive insurrection of 1895. In Washington, to his great surprise, he found himself an extremely unimportant personage. Congressmen preferred to consult the unofficial representative of the Honolulu Merchants' Association and Chamber of Commerce, a man who really understood and would tell the truth about Island conditions and needs. Only a small amount of Hawaiian business was transacted by Congress, and even with that little the delegate's most staunch supporters were unable to credit him. At home, in the meantime, the Home Rule legislators were showing their incapacity. Bills of no importance were discussed at great length, and so much time was spent by the legislature of 1901 in the consideration of a bill for the taxation of female dogs that it succeeded in immortalising itself under the name of the "Lady Dog" Legislature. Its more absurd measures were naturally vetoed by the Governor, and the Home Rule party finally made itself so ridiculous that in these last years it has died

a natural death. Very soon, also, the two regular American parties had properly organised and have never been outnumbered by the Home Rulers except in the first election, that of 1900. The votes cast for the Delegate to Congress at that election were: Republican 3,856, Democratic 1,650, Home Rule 4,083. In 1910 the numbers were: Republican 8,049, Democratic 4,503, Home Rule 989. The Republicans, who were in the majority until 1922, sent as delegate Prince Kuhio Kalanianaʻole, a nephew of the Queen of King Kalakaua, and himself a chief by birth.* As there is no prohibitive clause in the organic act there is no reason why the Territory should not eventually apply for admission to the Union as a State. There is every reason, on the other hand, why such application should not be made until conditions have become fixed and the American population is greater.

This ultimate possibility was recognised by the United States when the Islands were constituted a Territory instead of a "possession" with a distinct form of government such as was devised for Porto Rico and the Philippines. It was a pos-

*In 1914 the islands went overwhelmingly Republican. The Progressive Party proved as weak as in other sections of America. The Democrats elected a delegate to Congress in 1922 and 1924 but the Republicans have maintained a large majority in the Legislature.

sibility which Congress was willing to accept, since they saw that Hawaii was already American in language and institutions and that for it, in consequence, a Territorial Government was as proper as for Arizona, whereas a people whose ideals and language were Spanish must go through a long period of probation before they were fit to take their independent place in the American political system. From the beginning the policy pursued toward Hawaii has been a wise one. The Governors appointed have not been strangers, but citizens of Honolulu thoroughly conversant with Island problems. To a large extent this had been the case with other Federal appointments until the Wilson administration came into power and made purely political appointments. The result has been proper appreciation of Island needs because of proper representation at Washington, and at home steady progress that would not otherwise have been possible.

Looking at the matter purely from the Hawaiian point of view, American annexation has been, in the main, of great benefit. One often hears the remark, to be sure, "It was not this way before,"—"before" always referring to the years prior to 1898,—and certain it is that society, without the court as a picturesque centre, with many of the delightful English residents replaced by a purely

commercial class of Americans, has lost much of its charm. Economically, also, the operation of the Chinese exclusion law has caused serious difficulties to Island industries. In contrast to this, however, the ever present, if perhaps unfounded, fear of seizure by Japan was at once removed. Trade benefits, already enjoyed under the Reciprocity Treaty, were made certain for all time. The very difficulty of the labour situation should lead eventually to the forming of a more stable population and of a more dependable labouring class.

The transfer to Washington of all customs and internal revenue receipts, approximately \$1,250,000, seriously hampered Hawaii in the prosecution of necessary public works. To a limited extent, however, Congress has made up the deficiency by appropriations for public buildings and harbour improvements. The work of dredging, deepening, and building breakwaters is being carried on under these appropriations, supplemented by Territorial funds. Honolulu harbour is good but small, and is being enlarged, not only to meet present needs, but to satisfy the certain demands of the future. At Hilo a breakwater 10,000 feet long is being built by the Federal Government at an expense of nearly \$2,000,000, and docks have been constructed by the Territorial Government to



Diamond Head and Waikiki from Punch Bowl

accommodate the largest sea-going vessels. A breakwater at Kahului, the principal port of Maui, has been built as an extension to one already constructed by the local railway company. On Kauai, Nawiliwili has been selected as the site of a breakwater to make a deep-water port for that island. It is intended to have eventually, on all the important islands, landing places which will afford adequate shelter in all weather. So far, the most notable work of the kind has been, of course, that at Pearl Harbour, in process of being carried out by the Navy Department.

The Territory has been, aside from its naval and military value, a paying investment for the United States. From the date of annexation to the end of 1922 the total amount spent by the Federal Government in the Territory, including river and harbour improvements, post office, customs service, public health service, lighthouse service, public buildings, salaries, etc. was approximately \$17,000,000 whereas the Territory had paid in to the national treasury over \$105,000,000. Excluding expenses for the army and navy which are national rather than local, the United States had, in twenty-four years, made a net cash profit out of Hawaii of something over \$82,000,000. In the fiscal year ending in June 1925

Hawaii paid into the Federal Treasury taxes amounting to \$7,548,170.34, five and a half million through the Internal Revenue Bureau and two million through duties on imports. Imports from the mainland have increased in value from \$12,000,000 in 1903 to \$72,000,000 in 1925, and all but a negligible proportion of the exports from the Islands go to America, \$104,000,000 in 1925 as against \$1,500,000 to all other countries.

By the terms of annexation both the Government and Crown lands became the property of the United States, lands aggregating 163,200 acres, about 19,000 of which are suitable for homesteads. It has always been a disputed question with regard to the Crown lands as to whether or not some compensation should have been made to the Queen, the income of these lands having been at the personal disposition of the sovereign. Legal opinion seems to hold, however, that the lands were held by the Crown in virtue of office, and that the transfer of the sovereignty carried with it transfer of title. In spite of this, most inhabitants of the Territory feel that it would not have been a straining of justice to give the Queen some compensation, and that the courtesy of the act would have done away finally with any lingering resentment among the Hawaiian people. Laws relating to

all public lands are enacted by Congress and have been so framed as to offer every inducement to bona-fide homesteading, and at the same time to discourage occupancy for speculative purposes. The amount of arable land is about 60,000 acres, and it is rightly considered wiser to get whatever income is possible by leasing than to allow it to fall permanently into other hands than those of desirable settlers, men who will not only improve their own holdings, but will raise community standards.

The schools in the Territory, all of which are conducted in English, had enrolled in 1925 64,916 pupils, of whom 55,044 were in the public schools, 9,872 in the private. There was a total of 2,181 teachers, of whom over half were American. Education is compulsory and free, and is as efficient in Hawaii, in all branches below those of the university, as it is in any part of the United States. It was said a few years ago that, excluding the Orientals, the proportion of illiterates in the Islands was lower than in the State of Massachusetts. A public library, toward which Mr. Carnegie gave \$100,000, has been built in Honolulu. It is supported by grants of the Territorial Legislature. For the biennial period 1925-1927 it has \$101,680 for running expenses and \$34,000 for the purchase of books and periodicals. It owns some

68,000 volumes, including the important collection belonging to the Hawaiian Historical Society.

Efficient care is, of necessity, taken of the public health. This is essential, since Honolulu, with its cosmopolitan population, its tropical climate, its immigration from all parts of the world, its situation at the junction of Pacific trade routes, is peculiarly liable to infection. And the very reasons which make it so liable are the same which make freedom from disease imperative. The water supply and the sewage system are being extended in Honolulu, as indeed they are in all centres of population. The Board of Immigration has almost unlimited powers in the inspection of immigrants, of whom they send away hundreds annually; the Board of Forestry and Agriculture in passing on imported fruit; the Board of Health in the cleaning up of unsanitary districts and in the enforcement of pure-food laws. The legislature, realising the dangers, is very liberal in its appropriations to cover this work. The counties assist various hospitals, and the Territorial Government itself is interested financially in several general hospitals, in four tuberculosis hospitals, and in the dispensaries, and supports entirely the insane asylum and the leper settlement on Molokai.

It is said that fear of leprosy deters some from visiting the Islands, yet probably in no part of the globe is there less danger of infection, because no-

where is the disease so well understood, nowhere so well cared for, and nowhere are the patients—even those in whom there is even a suspicion of leprosy—so rigorously isolated. The leper settlement is situated on a triangle of land on the north side of Molokai, separated from the rest of the island by practically impassable cliffs. Here, during 1925, were treated 506 patients, of whom 559 were Hawaiians. There are in Honolulu a receiving station and homes for non-leprous boys and girls of leprous parents. Thoroughly scientific investigation of the disease is being conducted, and it has lately been found possible artificially to cultivate the bacillus, an advance in knowledge which augurs well for the ultimate discovery of a cure. Leprosy is only slightly contagious, if at all; the method of transmission is unknown, and it takes years to manifest itself,—facts which prove the nonsense of frequent scare headlines in American newspapers about the disease. Many devoted men and women have given their lives to service in the leper settlement, and only two, beside Father Damien, have contracted the disease. Stevenson's magnificent philippic, cruelly unfair to Dr. Hyde as it was, has made the name of Father Damien known and revered the world over. All honour must be given to him as the pioneer, as the first man willing to isolate himself for the benefit of the unfortunate patients, a self-sacrifice even more

noble since he evidently expected to die a leper, as he did. Because he took the disease, however, is often the reason that he is praised, whereas, as a matter of fact, he contracted leprosy only through gross carelessness and because he did not take the trouble to keep clean. Because he was the pioneer he is a hero, but hardly less heroes are those who have followed him, who have not contracted leprosy because they have been reasonably careful and willing to bathe. Lepers are never seen in the Islands. Practically no Americans have become lepers. The inhabitants of the Islands seldom think of the disease except to glory in the splendid work which is being done toward finding a cure.

Since Hawaii became a Territory it has grown rapidly in population, its old industries have increased and new industries have been developed. The trans-Pacific cable has put it into immediate communication with the rest of the world, enabling its business interests to keep constantly in touch with the great marts of trade. It is fortunate in having as the backbone of its population a force of intelligent citizens who have loyally transferred their allegiance to the United States, but who love their own little land and put its well-being above all personal considerations. Its affairs have been wisely conducted in Washington, so that it is justified in looking forward toward a bright future, in which it will have its own honourable share in the progress of its mother country.

CHAPTER V

COMMERCE AND INDUSTRY

THE Hawaiian Islands are industrially a busy and progressive place, and, unlike other tropical countries, physical activity is not limited to the dark-skinned races. The climate is such that Caucasians can not only work in the open, but, for the sake of health, need vigorous out-door exercise. The result is that agricultural opportunities are limited only by the extent of available land. The variety of crops that can be raised, moreover, is almost endless, ranging from the fully tropical near the seashore to crops of the temperate zone on the higher levels.

Only one industry has so far been developed to somewhere nearly its full capacity. Most of the large tracts of land suitable to the raising of sugar-cane have been already taken up by the plantations. These have not, however, fully utilized all the land available in the tracts they already control, and, if the sugar business continues to prosper, there is no reason why the Islands should not ultimately produce a crop of a million tons. There was sugar-cane on the Islands when they were discovered. The first exportation of

sugar was made as far back as 1837. A man who visited one of the primitive mills has described the curious granite rollers used to extract the juice, and the crude iron pans used as boilers, adding, as something hard to believe, that one mill was capable of producing as many as 300 pounds of sugar in a day. The great impetus to sugar production was given by the Reciprocity Treaty of 1876, which insured a market. Since then the industry has steadily grown, until, in 1924, the fifty-five plantations produced 701,433 tons of sugar, as well as over 10,000,000 gallons of molasses, an increase during the thirteen years since annexation of 316,000 tons. The value of incorporated and private sugar properties is about \$101,000,000. About 200,000 acres of land, half of which is reclaimed land, are devoted to the growing of cane. Artificial irrigation of many formerly arid tracts is carried on by means of extensive series of artesian wells, from which water is pumped to the higher fields, and by great irrigation ditches, from which water from mountain streams is distributed over thousands of acres. An immense amount of fertilizer is used annually, and the plantations devote large sums to scientific study of soils and to improvement, by hybridization, of the different varieties of cane. Indeed, the scientific precision with which the industry is conducted, the perfection of the machinery, the success in adapting dif-

ferent kinds of cane to different soils, and in raising these soils economically to their highest producing power, should be a lesson to agriculturists the world over.

On the large irrigated plantations the soil is ploughed to a depth of from two feet to thirty inches, and the cane is planted in rows five to six feet apart. The first crop is ready for the mill in about eighteen months; it is followed by a ratoon crop in fourteen months, and by another ratoon crop about eighteen months later. In some places the third ratoon crop is not profitable, but in others so much new surface soil is washed down from the mountains every winter that as much as seven or eight ratoon crops are possible; furthermore, some of the newer, improved varieties of cane are found to yield profitably seven or eight ratoon crops, even without this new soil. The land is now usually not allowed to rest between crops, and no change crops are planted, since it has been found more economical to make good the deficiencies in the soil by heavy applications of commercial fertilizer, as much as \$40 worth sometimes being applied per acre per crop. As no proper harvesting machinery has been invented to cut the cane, which grows in tangled masses, this work must be done by hand and the cane sent to the mill on cars, or, where water is plenty and the slope of the land sufficient, in flumes. It was for-

merly a common practice, both before and after harvesting, to burn the fields, the value of the small amount of juice lost being incommensurate with the expense of stripping the cane, and the quantities of dry leaves left on the fields interfering with ploughing and cultivation; but of recent years the fertilizing value of the decaying leaves has been found to be so great that burning has been almost entirely abandoned. At the most modern mills the cane is passed through from three to five sets of three rollers each, which so thoroughly extract the juice that the refuse, or bagasse, is fed directly into the boiler furnaces. In some mills the cane is sliced by revolving knives, or shredded into a substance resembling excelsior, before it is put through the rollers, and this process results in an extraction as high as 98 per cent. of the sugar. The juice first goes into liming tanks to correct acidity, thence into heaters to coagulate the foreign matter, thence into the settling tanks, and so into the evaporator, which may have a capacity of 1,500 tons of juice per twenty-four hours. From the evaporator, which has reduced it seventy-five per cent. in volume, the juice is forced to the top floor of the mill into the vacuum pans, in which the grain of the sugar is formed. Under the vacuum pans are the crystallisers, and, lastly, the sugar is sent for drying to the centrifugals. As it drops out of these it is

elevated into bins, from which it drops into bags, and is ready for shipment.

The whole process, which is intensely interesting, can most easily be seen in one of the great mills near Honolulu, that of Ewa, Oahu, or the Honolulu Plantation, this last being the only plantation which refines its own sugar. These three plantations, which are among the most progressive in the Islands, produced, respectively, in 1925, 50,-826, 64,030, and 23,915 tons.

Ewa is the banner plantation on the Islands because of its exceptionally favorable situation, its excellent management and the extensive use of a remarkable sugar-cane called "H-109," which is being adopted on most irrigated plantations. In 1925 Ewa produced the phenomenal average of 11.87 tons of sugar per acre and one field of 111 acres produced the unprecedented yield of 17.40 tons per acre. Conditions were, of course, exceptionally favorable and it is unlikely that this world record will again be equalled. The average yield for the Territory in 1924 was 6.11 tons per acre, 7.29 tons on irrigated and 4.69 on unirrigated plantations. This is an excellent showing when one considers that the average production in Cuba is only a little over two tons per acre. Lands in Cuba are actually more fertile and better adapted to sugar cultivation than in Hawaii and Hawaiian results have been reached through tireless work

and the most scientific development. In Hawaii the cost of production is infinitely greater because land is more valuable, fertilizer very expensive; because labor is well paid and American labor conditions or better prevail. There must be a greater return per acre to enable the plantations to make any profit, and with sugar as low as it is now in the world market they can hope for little more than to come out even.

The largest plantation in the Islands, and one of the largest in the world, is the Hawaiian Commercial on Maui, which produces between 50,000 and 67,000 tons a year. Many of the plantations along the coast of Hawaii and on Kauai are small, but they are often as prosperous and progressive as any.

The great problem of the sugar planters is labour, which must be comparatively cheap and, to produce the best results, ought to be stationary. The plantations have suffered immeasurably through the exclusion of the Chinese, an exclusion which here loses point since they do not, as labourers, compete with the whites. The Japanese are excitable and restless. The Hawaiians and the Portuguese are too few to supply the demand. Field labourers get from \$45 to \$50 a month, and are given, in addition, comfortable houses, fuel, water, schooling for their children, medical attendance, and usually a piece of land to cultivate.



**Sugar Cane in Flower—Will be Ripe and Ready to
Grind in from Six to Eight Weeks**

These perquisites are equivalent to about \$12.50-\$15 a month for an individual; more, of course, for a family. The wages of the most unskilled, therefore, amount to about \$57.50 a month. Furthermore, a new system has arisen and is growing in popularity. Tracts of land are let out by the plantations to companies of labourers, who do all the cultivation, becoming partners in profits. When these companies do their work well each individual realizes from \$70 to \$90 a month. In addition to all this, the plantations have installed a system whereby the labourer receives, entirely aside from his particular work or contract, a share of the profits, amounting, in good sugar years, to a considerable sum. On well managed plantations profits are good in good years, few being over-capitalized, but any serious increase in the cost of production could not be borne by many. The abolition of the duty on raw sugar would permit perhaps a third of them to continue, with greatly reduced profits—with no profits at all except in favourable years—whereas it would undoubtedly kill the cane-sugar industry of the Southern States and of Porto Rico, and the beet-sugar industry of the West. Some plantations would have prepared to go out of business when the law reducing and finally abolishing the sugar duty was put through by the Wilson administration, had not the war caused unexpectedly high

prices. The final retention of a small duty has given the planters new hope.

The commercial cultivation of pineapples is an industry of comparatively recent introduction, although pineapples for table use have been raised for many years. It has, however, grown by leaps and bounds so that it is now easily the second in importance in the Islands. For the best development the pineapple requires an elevation of from 500 to 1,200 feet and a rainfall of 35 inches or more. The plants are set out in numbers varying from 2,500 to 12,000 to the acre, according to the size of fruit desired. The first crop, of from 10 to 25 tons to the acre, matures in from eighteen months to two years, and a ratoon crop, varying from 8 to 18 tons, is harvested a year later. A second ratoon crop is usually grown, after which the fields must be reset. About 50,000 acres of land are now devoted to the cultivation of pineapples and in 1925 there were exported canned fruit to the value of \$34,000,000 and fresh fruits and pineapple juice worth \$45,000. There are eleven canneries in the Islands, that in Honolulu being the largest in the world. In 1914 and 1915 the war, and production in excess of the market already created, caused a glut of fruit, resulting in the loss of many thousand tons. The growers were, however, sanguine as to the future and their optimism has proved well founded. Hawaiian

pineapples, both raw and canned, are said to have the finest flavour of any grown. With the canneries at hand the fruit now has, of course, a definite market value and the time has gone by when a passenger on an inter-island steamer could buy from the canoes surrounding the ship at some port of call a hundred delicious little pineapples for the extravagant sum of one dollar.

These two, sugar and pineapples, are the principal agricultural industries of the Islands, with sugar very far in the lead—too extravagantly in the lead, perhaps, for safety. In calm weather a ship does well enough with one anchor, but in a storm it is more prudent to have several to windward. At present sugar is the Hawaiian anchor, and in comparison with it all other industries are but fish-hooks attached to more or less slender cords. It is very satisfactory, therefore, to note the growing interest in other agricultural ventures, some of which may eventually prove of great value.

The cultivation of rice, carried on almost exclusively by Chinese and according to Chinese methods, is almost as old as sugar and long held second place. Some 12,000 acres were at one time devoted to this industry, but the number is steadily decreasing. Although modern machinery is used in the cleaning and polishing of the crop, the primitive field methods to which the Chinese cling

have enabled the planters of Texas and California nearly to put the Hawaiian planters out of business. Furthermore, the decrease in the number of resident Chinese since annexation has diminished the demand in the Islands. The Japanese prefer the flavour of rice grown in Japan, import it in large quantities, and use it almost exclusively, although they have to pay about a cent a pound more. The rents asked for land watered to the extent that rice land must be are very high, and Chinese labour is practically unobtainable. This industry is, therefore, clearly not likely to be revived, but what there is left of it adds greatly to the picturesqueness and colour of Island life. Water-buffaloes, strong, patient, deformed-looking creatures, and, more recently, scrawny little broncho ponies do most of the work, both in the fields and in threshing the grain. They are picturesque, but they are no match for modern methods.

It looked at one time as though sisal would become one of the important industries of the Islands, especially as there are large tracts of comparatively arid land not suited for cane or pineapples. Although the fibre was of high quality however it was found that sisal could not be produced at a cost low enough to compete with that grown in Mexico and production has practically ceased. Another young industry is the

cultivation of tobacco, of which the finest grades can be grown successfully and economically. There are, at the lowest estimate, some 30,000 acres with soil excellent for tobacco culture and, with intelligent management the industry should ultimately be one of some importance. So far the experiments have been tentative and have not been carried on by those with sufficient capital to produce on a large scale or with sufficient knowledge of advertising to give Hawaiian tobacco a proper start in the American market. To a certain extent lack of proper advertisement is a reason why Hawaiian coffee is not favorably known to every American who loves a cup of really good coffee. A New York dealer said not long ago that if the Hawaiian agents, instead of being modest about their coffee and trusting that it would find a sale on its own undoubted merits, had labelled it a fancy grade and given it some euphonious name, they could have got the highest prices and sold all that could be raised. Hawaiian coffee has been raised since 1817, but the low wholesale price has cut down profits to a minimum and has discouraged the starting of new plantations. Hawaiian coffee, especially that grown in the district of Kona, is, however, of such delicious flavour that if some cooperative association could be formed properly to introduce it into the United States, there is no reason why it should not be-

come one of the most attractive and best paying industries. It can never, however, be greatly extended since most of the available land in the district of Kona where the best coffee is grown is already planted. The present production is about 55,000 bags of 100 pounds each. The banana industry is considerable and bananas can be grown almost anywhere in the Islands. During 1924 there were exported to San Francisco 217,745 bunches, valued at \$211,343. Including bananas consumed in the Islands it is safe to say that the crop is at least as high as 400,000 bunches. The banana fruits about a year and a half after planting and the tree is then cut down to give room to the suckers which spring from the roots. From 800 to 900 bunches per acre is the usual crop. Over fifty varieties are grown at various altitudes, but hardly more than a half-dozen are so far known commercially; especially is this true of the cooking varieties, which are even better than those eaten raw. If a market were created for these new varieties of banana they could be raised very profitably and in quantities limited only by the amount of suitable land. It is not improbable that as soon as assurance can be had of the constant cultivation of 20,000 acres or more, a special steamer service will be inaugurated to carry the fruit to the mainland, and a crop of this size would fill at least a boat a month. Other

crops which have been planted to some extent and seem to offer good opportunities to intelligent and progressive farmers, especially those who are willing to be pioneers, are cassava; Manila hemp; citrus fruit—if the Mediterranean fly can be eliminated—; macadamia nuts; corn; various forage plants; and starch, which is manufactured from the carina plant which grows luxuriantly. Serious study of these various agricultural possibilities and the introduction for experimental purposes of other sub-tropical plants would be of inestimable benefit to the Islands and might bring large returns to those who have courage to attack new problems.

No industry has made greater progress during the last few years than the ranching business. The ranch lands in the Territory comprise some 2,000,000 acres of which something over 500,000 acres are good grazing land. Scientific methods have been introduced and are in general use. The herds of cattle are being rapidly improved and the herd of the Parker Ranch, Hereford like a majority of the island cattle, is one of the finest in the world. At one time the ranches supplied practically all the beef used in the Islands but the great demand created by the Army has made the supply inadequate. At present only about two-thirds of the beef used comes from local sources. The demand, however, has stimulated scientific

ranching and the extensive raising of forage. The Parker Ranch, for example, is producing an excellent quality of corn in quantities large enough fully to supply its own needs with a little over for sale to other ranches. Alfalfa also, is extensively used, and in one small, especially favoured area it was found possible to produce the incredible number of thirteen crops in a year. From the point of view of progressive methods the Hawaiian ranches stand very high. They supply practically all the horses used by the army. They are also raising sheep but are as yet able to meet only about one-fourth of the home demand for mutton. Indeed, since the large increase in number of army and navy men stationed in Hawaii there has been extensive importation of mutton from New Zealand and Australia. Up to now, moreover, not enough attention has been paid to selection of breeds of sheep which will produce the finest quality of wool. Much is at last being done in this direction and the wool exported in the future should be of much better grade than that exported in the past. In 1911 enough hogs were for the first time raised to supply the demand in the Islands for pork, but the sudden increase in the army again put the demand ahead of the supply. Hogs are now being raised in larger and larger quantities. Both horses and mules are imported annually as draught animals, although the Island

ranches should and probably will furnish all that are needed in the course of the next few years. Poultry raising is carried on to some extent, but quantities of chickens and eggs are brought from the mainland. Poultry diseases are as troublesome here as elsewhere, but are no more troublesome nor any harder to deal with. It would certainly seem, therefore, that there is an excellent opportunity for a few men who are experts in the business.

The vital need of the Islands is to insure settlement of the labour problem on a satisfactory basis, and the only proper settlement would seem to be the creation of a class of independent small farmers who might increase their income by working for the plantations at the busy times. The era of unrestricted Oriental immigration is over, although the planters, during the last few years have imported Filipinos, who now number 50,000 and have helped to tide over the period of labour shortage. It is probable that in the future the Philippines will be the principal labour supply although it is hoped that Porto Rico will send a certain number of plantation workmen who may later become small homesteaders. On the whole, and in spite of the strikes of 1924, it appears that labour is contented. Certainly the labourers are well cared for and are given every opportunity to increase their income through liberal planting

contracts. In his annual report for 1925, the Governor of the Territory said: "I believe that in no other sugar-cane producing country of the world are the labourers and their families better cared for, better paid, or better rewarded for their hard work than those employed in the sugar industry of Hawaii." The same claim might be made with equal justice for the condition of the labourers in other agricultural industries.

It is hoped, of course, that the children of the labourers may continue in agricultural work. Everything is being done in the schools and in the University of Hawaii to promote vocational training but these attempts are as yet only in their experimental stage. To create interest in diversified farming, moreover, efforts are being made to test all kinds of crops; a central marketing agency, called the Territorial Market, has been established at public expense in Honolulu and in San Francisco. When these experiments have demonstrated that small farming is profitable and feasible as well in Hawaii as on the mainland, it is hoped that the plantation labourers will work to earn enough money to buy an upland farm, not tickets to San Francisco. They and their children will come down to the cane fields to work in harvesting the crop, just as the similar class of small farmer works in the harvesting season in California. In this way only will the problem of

labourers for the plantations be permanently settled, and, at the same time, the Territory will have gained a steady and reliable population.

Manufacturing, aside from the manufacturing processes connected with the production of sugar and the canning of fruit, can never be of great importance. This is inevitable, owing to the distance of the Islands from world markets, and still more to the absence of coal and minerals. Only one company, the Honolulu Iron Works, has, in the face of these obstacles, worked itself into a position of prime importance. This company has a large plant and manufactures practically all the machinery for the sugar mills and the pumping stations, except, of course, those parts which are controlled elsewhere by patent. Indeed, so well known is the Honolulu Iron Works for its accurate and excellent work that it has orders for sugar machinery from the Orient and even from Cuba. This success is, however, an exception, brought about by demands rising from local conditions, and does not affect the truth of the statement that general manufacturing would be unprofitable.

In public service corporations the Islands can take their place with any advanced community. Honolulu has an unusually well equipped and well conducted electric car service, with 32 miles of track. The cars run to all parts of the city, are of the most modern make and are thoroughly com-

fortable. A franchise for an electric line for the town of Hilo has been granted, but the line has not yet been constructed. It may, in general, be said that the transportation problem in the towns is working out just as it is in the cities of the mainland. Jitneys and public and private automobiles crowd the streets of Honolulu much as they do the streets of Chicago. The steam railroads in the Islands have a capitalization of \$4,240,200 in bonds and \$10,764,960 in stock, and have about 345 miles of road in operation, this being exclusive of the thousand miles of more of track owned and operated by the sugar plantations for their own use. The Oahu Railway and Land Company has 163 miles of track, including the main line and its branches, and is connected on the north side of the Island with something over 11 miles of track of the Koolau Railway. The Oahu Railway Company has excellent terminal facilities and docks and offers good passenger and freight service. On Maui, the Kahului Railroad Company operates some 42 miles of road, connecting with 125 miles of plantation track. On Hawaii the Hilo Railroad Company has built about 90 miles of track. The line northward along the coast, which was extremely difficult to build on account of the deep gulches, will eventually carry all the sugar of the district of Hilo for transportation to America, thus doing away with the many

dangerous plantation landings where sugar is lowered over the cliff into small boats or run on cables direct to the steamers. These lines are mainly for the transportation of freight, but as their passenger service is also good, they make easy of access some of the best scenery in the Territory.

Honolulu was one of the first cities anywhere to have a general telephone service. The company has now taken over also the control and management of inter-island wireless telegraphy. All important centres are equipped with electric lights, and the capital is also supplied with gas. In so far, therefore, as modern conveniences are concerned, the Islands are quite on a par with the mainland.

Water transportation facilities are constantly increasing. The Inter-Island Steam Navigation Company has a fleet of thirteen steamers, nine of them passenger carriers, which call at all ports in the Territory. They carry annually about 100,000 passengers and something over 300,000 tons of freight. The steamers are small, but the newest, the *Haleakala* is 360 feet in length and carries about 200 passengers. They are as well fitted up as any boats of corresponding size and the service and table are good. This company controls nearly all of the inter-island traffic. There are local lines, with ships plying between the mainland and the Hawaiian Islands, which operate chiefly

for the transportation of freight. One of these lines, the Matson Navigation Company, has excellent passenger accommodations on four of its larger steamers and is building another. The *Malolo*, building in Philadelphia, will be in operation in 1927. It will make the run from San Francisco in 4½ days, thus giving two round trips per month. It will be 600 feet long, with a beam of 84 feet. It is said to be the finest passenger ship ever turned out by an American yard and ought to give great stimulus to the tourist traffic. Honolulu is also a port of call for various foreign-owned lines of steamers, which, however, owing to United States navigation laws covering coastwise trade, are allowed to carry neither passengers nor freight to or from the Islands except on payment of a heavy fine. These laws do not apply to the steamers of the Canadian-Australian Steamship Company, which, taking passengers and freight to and from Vancouver, are not acting as carriers between two American ports. The Pacific Mail, an American line formerly running between San Francisco and the Orient, and controlling much of the Honolulu passenger business, has now been bought by the Dollar Line which runs the ships. So far as freight is concerned, the United States navigation laws are of no particular hardship to Hawaii, as there are enough American freight ships to handle

the business, but they are a serious inconvenience to passengers, since there are not enough passenger carriers to handle them with comfort. A suspension of the law relating to the carrying of passengers between the mainland and outlying possessions would not be a hardship to American companies, and would be for Hawaii relief from a particularly vexatious burden. Such suspension or repeal would seem only fair, moreover, since the possibility of outlying territories was not considered when the laws were enacted.

With the opening of the Panama Canal the shipping of the Islands has largely increased. Honolulu should become a great commercial centre, since, being the only available port of call in the North Pacific, it should do an immense business in the trans-shipment of freight and in the sale of fuel. As a shipping centre, indeed, it has grown in importance for several years. The tonnage entered in 1901 was 952,504; in 1925 it was 7,993,137. There is every reason to believe that this amount will steadily increase. More and more steamers from Panama will call at Honolulu for coal and other supplies, and to meet this demand the traffic with California will grow correspondingly both with San Francisco and Los Angeles.

As a mercantile centre, therefore, the future of Honolulu seems as secure as does the agricultural future of the group. It means a busy port, a

meeting ground for the ships and the people of all nations, less of the calm always associated with the tropics, more dirt and confusion, but with these disadvantages it means more colour, more of the cosmopolitan life that is so attractive to the onlooker.

CHAPTER VI

THE ARMY AND NAVY IN HAWAII

As soon as the Islands were annexed in 1898 it became necessary for the United States not only to organize the new Territory but to take such military measures as would make it a real protection to the western seaboard. While the Philippines remain an American possession Hawaii must always be the most important station on the immensely long line of communication between the Coast and Manila. Even should the Philippines be ultimately abandoned, Hawaii must constitute, not an outpost of American civilization, difficult to defend, but rather a first line of defense and an invaluable aid in any offensive naval demonstration. It demands no great intelligence to perceive the advantages of a friendly supply station, either in peace or war, part way across an ocean 5,000 miles wide.

The strategic importance of the Hawaiian Islands has, indeed, long been appreciated by American naval officers. There was found in the Archives Building in Honolulu a few years ago an old letter written by Lieutenant Curtis, on board the U. S. Frigate *Constitution*—"Old Ironsides"—

to the Hawaiian Minister of Foreign Affairs. In it he said: "Allow me to call your attention to the importance of Pearl Harbour, the perfect security of the harbour, the excellence of its water, the perfect ease with which it can be made one of the finest places in the Islands, all of which combine to make it a great consideration. While the harbour was clearing out fortifications could be built, troops could be drilled, the forts might be garrisoned, Government storehouses built. The amount of money to be expended will be but a feather in comparison with the almost incalculable amount of wealth that will result upon the completion of these objects." So, for the last half-century and more United States naval officers, one after another, have dwelt on the limitless strategic importance of this remarkable harbour, which actually came under American domination, not when the Islands were annexed, under President McKinley, but when the provisions of the Reciprocity Treaty were extended to include control of the harbour, during the administration of President Harrison. Pearl Harbour, eight miles west of Honolulu, is connected with the open sea by a narrow channel only. It contains ten square miles of navigable water, with thirty miles of deep water front that is absolutely calm in any weather. The most important harbour in the Islands, it is as fine as any on the Pacific slope of the mainland. The diffi-

culty in making it practicable lay in the shallow bar at the entrance and in the tortuous channel leading to the deep inner locks. In 1908 a contract was signed with a Hawaiian company for the dredging work, which included the removal of the bar, the straightening of the channel, and excavation for a drydock. A good part of this extremely difficult work has been completed, and on December 14, 1911, the United States Armoured Cruiser *California* steamed through the entrance, up the partly straightened four-and-a-half-mile channel, and anchored in the inner harbour opposite the site of the drydock. This was the first large vessel ever to enter the inner harbour. Among the Admiral's invited guests were Queen Liliuokalani and Judge Dole, first Governor of the Territory—a pleasant commentary on the good relations between the antagonistic factions of a few years ago. There remains, however, an immense amount of dredging to be done to bring the harbour to its maximum usefulness. Plans and specifications have already been prepared and Congress appropriated in 1926 \$1,000,000 as the first step in a project calling for an expenditure of \$5,182,000. Bids are to be called for in the autumn of 1926 and if there is suitable response the work of making this the finest land-locked fortified harbour in the world should begin promptly.

Lieutenant Curtis saw, over a half-century ago,

that Pearl Harbour must determine the first scheme of defense of the Islands. That this was true was recognized by the several military commissions sent to Honolulu after annexation. It was manifestly impossible and unnecessary to protect all the Islands, at least at first—impossible because of the great shore line, and unnecessary because they had, as yet, no really excellent harbours and were comparatively sparsely settled. The south side of Oahu, including the city of Honolulu, however, presented few initial difficulties. The back-bone of the Island, the precipitous mountains extending from the north-west to the south-east extremities, were, for all practical purposes, impassable. No party which could conceivably be landed on the north-east coast could reach Honolulu. The west, again, was protected by the detached mass of the Waianae Mountains, and the only possible land approach, therefore, was across the plains between the two ranges. It remained to guard against possible attack here, and against probable attack, in case of war, from the sea. It has now been decided by military authorities that eventually even the north side of the Island should be fortified, but this is, even now, not of pressing importance. All this work had, of course, as its main object, to make as nearly impregnable as might be with first-class fortifications, armed with the most powerful guns, and



Pineapple Plantation, Wahiawa, Oahu

adequately manned, the great naval base at Pearl Harbour.

The first occupation by United States troops occurred within a few weeks of annexation. On August 16 and 17, 1898, the 1st New York Volunteer Infantry and the 3rd Battalion, 2nd U. S. Volunteer Engineers, mobilized on account of the Spanish War, arrived in Honolulu and established Camp McKinley, in the vicinity of Kapiolani Park. On April 18, 1899, these volunteer organizations were relieved by Batteries, A, I, K, and N, 6th U. S. Artillery, of the regular army, commanded by Major Samuel L. Mills, and since that time all military affairs have, as a matter of course, been conducted by members of the regular army.

Camp McKinley was never intended to be more than a temporary affair. It was abandoned and all buildings sold in 1907 and the original site is now a part of the city park system. The first permanent post to be occupied by troops, in June, 1907, was Fort Shafter, situated on the Kahuiki Military Reservation, three miles northwest of Honolulu. This reservation has an area of 1,341 acres including the Tripler General Hospital. Its total strength is about 1300, the post being garrisoned by the Department headquarters troops and the 64th A. A. Regiment. Suitable frame buildings, erected some years ago, provide for a part of the troops, but many, after twenty

years, are still quartered in board and batten shacks with low box-car roofs—this even though the camp is permanent and is likely to increase rather than decrease in size. The average visitor would hardly realize the real discomfort and heat of the quarters since they are masked with vines and flowering shrubs, planted, perhaps to give at least the illusion of comfort.

Housing conditions are better at Schofield Barracks, where concrete buildings are available for all units except the 19th Infantry, still quartered in poor shacks of the cantonment type, and the Air Service Squadron, quartered in barracks improvised from Air Service hangars. This great reservation of 14,605 acres, twenty miles northwest of Honolulu, is on the plateau between the two mountain ranges. It is in a cool, healthful situation, swept by the trade winds. It commands the one possible land approach to Honolulu—the Pali being easily defended—and in number of troops is the most important station in the Islands. Schofield Barracks is the station of the Hawaiian Division, an organization consisting of all arms, with a total post garrison strength of slightly less than 10,000 troops. Everyone in the Islands and most Army people who have been stationed in the Islands wish that the lovely old Hawaiian name of Leilehua had been retained as the name of the post. This is especially true since

General Schofield, of course, never had the slightest connection with the place.

The coast defenses of Oahu include Forts Armstrong, De Russy, Kamehameha, Williston and Ruger, and are under a single command. Fort Armstrong is the saluting station for the port of Honolulu. It is built on the Kaakaukui Reef, one mile from the centre of the city and at the entrance of the harbour. Its area is 64 acres, and it is the station of supply and motor transport troops. Both officers and men are comfortably housed. Fort Armstrong has a personnel of about 350. Fort De Russy, with an area of 74 acres, is situated on the Waikiki Military Reservation, three miles southeast of the city. It is garrisoned by Coast Artillery troops pertaining to the 16th C. A. This post is on the beach, in a rather warm situation. For years the troops lived in tents and "temporary" shacks, which have now been replaced by proper frame quarters.

Housing conditions at Fort Ruger are more satisfactory than at any other post in the Hawaiian Department. The barracks and some of the officers' quarters are of concrete and the rest of the buildings are of substantial frame construction. Fort Ruger is garrisoned by elements of the 16th and 55th Coast Artillery and detachments of service troops, the total strength being about 900. It is situated on the military reser-

vation at Diamond Head and has an area of 754 acres. It stretches over the narrow plateau extending back from Diamond Head to the lower slopes of the mountains, and commands the sea approach from the mainland, around the south-east extremity of Oahu. Connected with it, of course, are the extensive permanent fortifications of Diamond Head itself, the crater of which forms a natural emplacement for concealed guns. These fortifications, which make the hill a miniature Gibraltar, are properly not open to visitors.

Fort Kamehameha, on the Queen Emma Site at Pearl Harbour, has an area of 412 acres and is nine miles west of Honolulu. It is headquarters of the coast defenses of Oahu. It was first occupied by troops in January, 1913. Good frame buildings have been completed, so that housing conditions are satisfactory. The fort is on low, flat land, but is well drained and gets the full benefit of the trade winds as they fall over the mountains.

The Department Hospital, which is the general hospital for the Hawaiian Department, is situated near Fort Schafter, on the Kahuiki Military Reservation. It was built in 1906 as a 12-bed post hospital, and from this small beginning has grown to be a group of detached buildings with a capacity of 350 beds, which, in emergency, can be expanded to 500 beds or more by utilizing, as is pos-

sible at any time of year in the Hawaiian climate, the broad and roomy piazzas which surround every building. In addition a Division hospital with a capacity of 300 beds is under construction at Schofield Barracks.

The above comprise the regular army establishments in the Islands. There are in addition several small military reservations on the Island of Oahu where detachments make temporary camp for training purposes. There is also a recreation camp, maintained at the expense of the military personnel, at the Volcano of Kilauea on Hawaii. This, because of the cooler and invigorating mountain air, is a valuable adjunct for the military personnel in the Islands.

It is to be hoped that housing conditions in all the posts will shortly be brought up to standard by the construction everywhere of cool, wellbuilt houses and barracks. The army has now been in the Islands for almost thirty years; it was known from the beginning that the posts were permanent; yet even now hundreds are unhealthfully housed. For the outsider it is hard to understand what political or other considerations could account for this neglect on the part of the Government for the health, the morals, and the physical well being of its own servants. What makes it worse is that a soldier cannot escape from his surroundings, cannot change his job like a man

working for a private employer. He is caught in a system and the system is not as responsive as is even a corporation—which we are taught to think of as something without soul. Everything has to be done after the unwinding of endless red tape—much of it necessary to safeguard the people's money—and the result is that things do not get known promptly. When some of the buildings were erected, for example, there was a waste of money because Eastern architects who drew the plans did not realize that in the tropics a central heating plant is far less important than an ice machine. These same architects probably do not realize that board and batten shacks are as unsuitable to the tropics on account of the heat as to the north on account of the cold. But much has been done within the last few years and it should not be long before every soldier has proper accommodations.

Until October, 1910, the different army posts were independent of each other, reporting directly to Headquarters of the Military Department of California at San Francisco. In this month the War Department issued orders consolidating all Hawaiian posts into a single military district, known as the District of Hawaii, and included in the Department of California. The first commander of the District was Col. W. S. Schuyler, 5th Cavalry, who, after two months, was succeeded

for a short time by Lt.-Col. H. W. Wheeler, of the same regiment. In November the President designated a General Officer to assume command, and in January, 1911, Brig.-Gen. Montgomery M. Maccomb, U. S. Army, arrived to take up the duties of the position. Headquarters, first established at Schofield Barracks, was transferred to Honolulu on March 31, 1911. On October 1, 1911, the District of Hawaii was created a Military Department, known as the Department of Hawaii, and was detached from the Department of California, but included in the Western Division, created at the same time. This status remained until 1913, when, in February, the designation was once more changed, this time to the Hawaiian Department, when the Islands were made an independent command, subordinate only to the War Department. Brig.-Gen. Maccomb remained in command, except for a short period, until he was relieved, in April, 1913, by Brig.-Gen. Frederick Funston, who commanded until he was relieved by Brig.-Gen. Maccomb, temporarily, in January, 1914. He was superseded in March of the same year by Maj.-Gen. W. H. Carter, who commanded the Department until relieved by Brig.-Gen. John P. Wissner in November, 1915. Maj. Gen. Charles P. Summerall was in command of the Department for three years (1921-1924) and Maj. Gen. Edward M. Lewis has been in command since January, 1925.

Thus it is that the recommendations made so long ago by Lieutenant Curtis to the Hawaiian Government have been carried out by the army of his own country. And, as he suggested, the various fortifications have been built with Pearl Harbour as the strategical centre. Here, however, work is being carried on by the Navy Department.

A Naval Coal Depot was established in May, 1898, before annexation, the United States exercising the right granted by the Reciprocity Treaty. In November, 1899, the Navy Department designated the property acquired under the President's Executive Order, Naval Station, Honolulu, which title was changed in the following February to Naval Station, Hawaii. The Station was at first a coal depot, but soon began to be used for operations in connection with Midway Island, where a marine detachment was stationed, for the purchase of supplies, for the delivery of water and provisions for passing warships and transports, and as an encampment of marines. Since 1908 it has been the preliminary base in connection with the immense development work at Pearl Harbour.

In anticipation of this work land was acquired by condemnation proceedings in 1903 and 1904. Dredging of the channel at the entrance of the harbour was begun in 1908 and completed in 1910. Before this was finished work on roads, sewers and industrial buildings was under way. Many great

industrial buildings have been erected, including a machine shop, a copper, plumbing and electroplating shop, a boiler, sheet-metal and shipfitter shop, a forge shop, a foundry, a woodworking shop, a boat shop and great storehouses. There are also an administration building, a coaling plant, a refrigerating plant, a floating crane, a swimming pool for the men, a powder magazine and many buildings and accessories. There are proper quarters for officers and enlisted men, built of wood and concrete with asbestos shingles. The industrial buildings have concrete foundations, steel construction frames and asbestos protected corrugated iron. In fact practically all the buildings are of permanent construction, built for the tropics, and furnishing really comfortable as well as serviceable quarters. The streets have been paved, sea-walls built where necessary, and general yard development is nearing completion. Machinery has been installed in the various shops and powerhouses and the station is in running order as a naval operating base as well as an industrial yard.

The great drydock No. 1 was completed in 1919 at a cost of \$5,356,675. The first plans were for the construction of a drydock 820 feet long, 110 feet wide, and 35 feet deep, and a large part of the work had been accomplished. But, unfortunately, the engineering difficulties had been

under-estimated, so that before completion this dock gave way and all that had been built was ruined. This was, of course, a serious set-back, but the collapse of the first structure only brought about the determination to build an even larger dock, which might serve to hold the largest ships either launched or projected. Drydock No. 1 is constructed of concrete and steel. It is 1001 feet 10 inches in length, and 112 feet in width. The depth of water over the blocks is $32\frac{1}{2}$ feet. It will take ships of the Wyoming class and there is no idea of further construction. In addition to the drydock there is a 2,500 ton marine railway which is used for docking destroyers and smaller craft. All this work at the Station has given employment to thousands of American citizens and has been, as well, a stimulus to industrial enterprises in Honolulu, both in the furnishing of material and in the extension of transportation facilities.

The naval aviation force in the Islands, stationed at Luke Field, Ford Island, Pearl Harbour, comprises 22 officers and 287 enlisted men and utilizes approximately 21 operating planes. This station has its own Administration Building, storehouses, carpenter shops and machine shops. The hangar, built of wood sheathing, is 180 feet long and 302 feet wide. Owing to the configuration of the mountains across which blow the pre-

vailing trades the air currents over the leeward side of the Island are somewhat treacherous. In spite of this, however, there have been few accidents, and not a day passes that planes do not pass over the city of Honolulu, sometimes crossing the mountains, sometimes making for the open sea or one of the other islands. Air Station, Ford Island, was of course the goal of Commander Rogers on his flight from San Francisco in 1925. It will not be long before that goal is successfully reached, when perhaps that flight of 2100 miles over the empty ocean will not seem anything venturesome or unusual.

Luke Field is also, with the exception of the observation squadron, the headquarters for army aviation. Here are the pursuit and bombardment forces so that altogether on this 1500 acre island there is an aggregate garrison strength of about 800.

On Naval Station, Hawaii, are based Submarine Division Mine (R-1 to R-10), Submarine Division Fourteen (R-11-R-20), Mine Squadron Two, the U. S. S. *Ludlow*, *Burns*, *Tanager* and *Whippoorwill*; a mine-sweeper and certain tugs. There is seldom a time, moreover, when ships of the Pacific Squadron are not in port for one reason or another. The force maintained, including the crews on the ships and the marines, numbered in 1926 1952 enlisted men with 123 naval officers and 16

marine officers. The number, of course, varies in accord with momentary needs. It was naturally largely increased during the naval maneuvers in 1925 when spectacular and also exceedingly informative war games were played around the Islands.

The following have been in command of the Station since its establishment: Commander John F. Merry (detached as Rear-Admiral), to July 31, 1902; Captain William H. Whiting, to February 24, 1903; Lieutenant-Commander Hugh Rodman, to August 14, 1903 (temporary); Lieutenant-Commander A. P. Niblack, to August 21, 1903 (temporary); Rear-Admiral S. W. Terry, to December 25, 1904; Rear-Admiral H. W. Lyon, to June 25, 1906; Rear-Admiral S. W. Very, to April 23, 1908; Rear-Admiral C. P. Rees, to December 13, 1910; Rear-Admiral W. C. Cowles, to February 6, 1913; Rear-Admiral C. B. T. Moore, to July 17, 1915; Rear-Admiral C. J. Boush, to August 13, 1916; Rear-Admiral George R. Clark, to June 10, 1918; Rear-Admiral Robert M. Doyle to May 15, 1919; Rear-Admiral William B. Fletcher to July 6, 1920. Commander P. P. Emmerich acted as commandant until January 14, 1921 and again from June 28 to September 15, 1921, Rear-Admiral Shoemaker having been in charge only six months. Rear-Admiral Edward Simpson served until June 7, 1923 and since that

date Rear-Admiral John D. McDonald has been commandant. This period of over three years is so far the longest and it should create a precedent since a man must be more efficient when he has held a post long enough to become thoroughly familiar with its duties and its possibilities.

In addition to a Navy personnel of about 2000 15,000 of the Army are now stationed in Hawaii. In his last annual report the Secretary of War states that to protect the Hawaiian Islands the present garrison should be 980 officers and 19,377 enlisted men. This increase can hardly occur unless there is an increase in the army at large. The number in Hawaii is not too great, but the mobile army is too small. Only those with such a twisted love of peace that they see in every gun a threat of war, those who stupidly argue against any form of preparedness, would deny the truth of this statement; and only they will see in all the costly military preparation in Hawaii a waste of national funds. It is, in reality, a profoundly foresighted expenditure, since the Pacific Ocean is rapidly becoming the theatre where world powers are striving for commercial and military supremacy. The Hawaiian Islands, situated at the crossroads of traffic, the only available stopping place in the whole vast extent of the North Pacific, will enable the United States absolutely to command the ocean against an Asiatic or any other

power by making an over-seas attack too dangerous to be attempted. No modern war fleet would dare to get 4,000 miles away from a base of supplies. This impregnable oasis of the ocean, moreover, will insure the safety of the important trade routes and will thus supplement the international value of the Panama Canal. Nobody can call Hawaii a threat at anyone. It should be the impregnable defence of our western shores.

The National Guard of Hawaii now numbers about 1,500. Up to 1915 the militia resembled that of any state on the mainland which was not particularly well prepared. The European war roused Hawaii as, and rather more than, it roused the rest of America. In August Samuel I. Johnson was appointed colonel, later brigadier-general, and he, a man of boundless enthusiasm and military experience, made a canvass of all the Islands, instituted a serious recruiting campaign which brought excellent results, approximately 3,000 men enlisting in six weeks. There are now two regiments in the Islands. The relation of the National Guard to the Regular Army and its status as a federal reserve is exactly the same as in the several states of the Union. The co-operation of employers might well be emulated by employers on the mainland. The plantations have given earnest support, not only in good will, but in actual cash, in the assignment of land for

rifle-ranges, of warehouses for temporary armories, and in providing free transportation to their employees to and from the general assembly points. And not only the plantations, but the public in general has been generous in support.

Hawaii has become the principal place in the United States to study the Army and the Navy at work. It is easy enough to find fault, but one who has looked over the ground must admit that admirable results have been accomplished. The guns and the fortifications are of the most modern type; the Army is a well-disciplined, efficient fighting force; the embryo naval base at Pearl Harbour has been planned to meet the needs of the future as well as those of the present; the territorial militia is large, and is rapidly being whipped into shape as a valuable second line of defense. It now remains for the Federal Government to see that all troops are properly housed, that the Army is recruited as soon as possible to its intended strength, and, not resting satisfied with what has already been accomplished, to keep the post always up to date and in readiness for any eventuality. America is sometimes more successful in creating than in maintaining at maximum efficiency what is already done.

CHAPTER VII

HONOLULU

THE American tourist to the Hawaiian Islands will probably take ship in California, although the steamers from Vancouver are also good. He must remember that from a United States port it is possible to sail to Honolulu only on a ship under American register, unless he has a through ticket to the Orient and plans merely to stop over. The first day or two out of either San Francisco or Los Angeles are usually cold, so that heavy wraps are essential, but as the rest of the trip is warm, rooms on the starboard side, getting the trade winds, are preferable.

After the hills of the Coast Range have dropped below the horizon there is almost nothing to see—a whale perhaps, or porpoises, but no land and very rarely a passing ship. But to the man who has never been in the tropics the ocean, so utterly different from the North Atlantic, is a revelation. There usually are no waves, as the Atlantic traveller knows waves, but the whole surface of the sea sways gently in great, silent, lazy swells. Day by day the blue grows more intense until it becomes that brilliant, translucent, but seemingly not

transparent, ultramarine that is seen only in tropical waters and that once seen is never forgotten.

On the fifth day there comes the restless feeling that one always has on approaching land. The ocean, near the Islands, loses its glassy surface, which, after a long time, is uneasily suggestive of the "painted ocean" in the "Ancient Mariner," ripples again as the ocean should, and breaks into spurts of foam. The cloud-bank ahead finally reveals the land beneath, and one sees the rocky eastern end of the Island of Oahu. To the left appears the long coast line of Molokai, but at no time near enough to be interesting, except as being more land. It is on the Island of Oahu, straight ahead, that attention is riveted, on the barren promontories, at the foot of which the surf marks its feathery, ever changing line. On the point reaching out furthest toward the east stands the magnificent Makapuu Point Light, installed in 1909, one of the most powerful lights in the world, and in a position where it is vitally necessary to mariners. All black this land looks, like rude piles of huge volcanic, storm-beaten rocks. The north side of the Island is shrouded with clouds, but, if the day is propitious, as it usually is, the clouds break again and again, revealing distant but enchanting glimpses of colour—the soft green of cane fields, the vivid yellow of salt grasses along the shore, and the purple blue of the precipitous

mountains across which the trade wind is blowing masses of sparkling white and silver grey clouds. But these are only glimpses, lost as the steamer approaches the Island and, rounding the Point, proceeds westward along the southern shore.

Oahu geologically is made up of two ranges of mountains. Those in the southwestern part, the Waianae Mountains, form a group dominated by Kaala (4,040 feet), flat-topped, as though the original volcanic cone had been blown away, as it in fact may have been, since there are still vestiges of an ancient crater. The Koolau Range, forming the backbone of the Island, extends in an unbroken chain from northwest to southeast. On arriving from the north it is the geologically younger end of this range that one sees first, barren because not yet has sufficient time elapsed to allow erosion to do its full work of disintegrating the ancient lava and forming fertile soil. As the steamer rounds Koko Head, long and rounded, like a gigantic mound of desert sand, so named because of its blood-red colour in certain lights—koko means blood in the Hawaiian language—there come into view the shores of the great shallow bay of Waialae. Here, at last, is vegetation. The beach is fringed with cocoanut trees, and a little way back the land rises abruptly, breaking into deep, narrow, fertile valleys and rocky ridges that on their higher slopes lose themselves in the verdure

of the mountain tops. After a half-hour skirting the coral reef that protects the bay from the great swells of the Pacific, the boat passes another promontory, Leahi, or Diamond Head, and the city of Honolulu comes into sight.

The tourist knows at last that he is surely in the tropics, knows, too, if he has travelled far, that nowhere is there a more beautiful, peaceful scene. The ocean outside the reef is blue—the same blue that it has been for days, but darker, so deeply dyed that it looks almost opaque, until one gazes straight down and catches the twisted sun rays that are gleaming far below the surface. The reef makes a sharp line of white surf, and beyond it the wide shoals are pink and green and buff, according to the nature of the sea-bottom and the angle of the light—a brilliant Oriental carpet along the shore. The mile or two of gently rising land between the beach and the spurs of the mountains is a mass of trees, the green line of them broken only by the roofs of the houses. This vegetation, a little monotonous in colour, as an artist would have made it to lead from the brilliance of the sea to the still more brilliant mountains, extends from the suburb of Waikiki, clinging about the foot of Diamond Head, past the city itself, westward, until the misty green of cane fields carries it insensibly into the still more misty, pale-bluish purple of the distant Waianae Mountains.

Back of the city, to right and left, stretches the Koolau range of mountains, not very high (3,105 feet is the highest), but seeming higher than is the case because toward the top they rise sharply; because there is the space of a few miles only from sea level to their crests; because the quality of the atmosphere and the clouds that hover almost always over and above their summits give them that crystal blue which the mind naturally associates with far vistas of lofty peaks. It is on the slopes of these mountains that one finds the hot exaggeration of tropical colour—the yellow splotches that are kukui trees, the grey of fern masses, the emerald of ohia and banana trees, made more brilliant through contrast with dashes of brick red earth.

The picture is never for two days the same. Sometimes there is an opalescent mist that is not really mist, but rather a denser atmosphere which fuses the colours. Occasionally the clouds hang sullenly over the mountains and the water along the shore is black, with streaks of pale green. Another day the trade wind is blowing—and this is true three-quarters of the time—the air sparkles, the mountains shine against a sky clean swept except where the great, lazy, cream-white and pearl-grey clouds, gathering somewhere beyond the hills, pile through the gaps and then make veils of sudden showers high in the valleys, or,

sailing onward toward the south, disintegrate and disappear. The traveller knows the approach to San Francisco, to Southampton, to Madeira. The first view of Honolulu, as the steamer rounds Diamond Head, is in its own way quite equal to these; remains always in memory as a vision, lovely and radiant and supremely satisfying.

The harbour of Honolulu is not large. The entrance is 40 feet deep and 200 feet wide; the inner harbour shoals up from 40 feet to shallow depths. It is 1200 feet wide, 300 feet having been added since annexation. The name *Honolulu* means "quiet haven," and is appropriate, since there are few severe storms and no weather affects the safety of the harbour, which, in consequence, is usually crowded with shipping. As the steamer enters the channel people watch the Japanese and Hawaiian fishing boats, usually dories painted some bright colour, that contrast with the grey tenders of the men-of-war. Near the dock the water is alive with Hawaiian boys swimming about and shouting, ready to dive for nickels and dimes, not one of which do they miss. They are marvelously dexterous swimmers and give incoming passengers amusement that is pleasanter and more unusual than looking at the undoubtedly practical but also undoubtedly ugly warehouses and United States Government storehouses which line the shore. Not much more attractive in looks is the

nearby quarantine station. This, however, is an excellent modern station under Federal control and is capable of caring for 30 sick people, 100 first cabin and 300 second cabin passengers, 600 immigrants, and 1,600 troops. Nor is the dock more suggestive of an exotic tropical city. White linen suits on the men, sometimes the sickly smell of sugar, always Hawaiian women with wreaths—"leis" they are called—of flowers to sell, at least make one realise, however, that one is not landing in a northern port. The piles of coal, the dust, the hurry are alike in all ports where commerce is of more importance than is the sensation-hunting tourist.

Nor is the first glimpse of the city more reassuring. Indeed it may as well be admitted that Honolulu is, architecturally, very bad; that in the business portion, where vines and trees do not hide, the ugliness is sometimes depressing. There are fine modern business blocks, as completely fireproof and as completely uninspired as any in Chicago. Next to them may be low, shoddy wood or brick buildings. Some of the newer buildings, and especially, let it thankfully be said, public buildings, such as the fire station, built of blue-grey Hawaiian stone, would be pleasant to look at anywhere, but in general the business part of the city is in that sad intermediate state which is neither trimly new nor picturesquely old. It pleases only

those who live there, and then not æsthetically, but as its growth indicates material progress. This accusation of commonplaceness is true only, however, when one takes the city as a whole. Single glimpses are often wonderfully attractive—the fish market with its piles of gaudy fish, every colour of the rainbow, the different booths presided over by Hawaiians or Orientals; the sidewalk on Mauna Kea Street, lined with Hawaiian flower-sellers with their basketfuls of cut flowers and their leis of every colour, laid in rows on the sidewalk; or some queer corner giving a vista up the Nuuanu stream; or some little wooden house lost under a great mass of bougainvillea. These, fortunately, are the things which one never forgets. In a month the commonplaceness is gone, but the beauty and the strangeness remain.

Honolulu, a city of over 100,000 inhabitants, stretches for several miles on the narrow plain between sea and mountains, reaches up into the valleys, and sometimes actually climbs the steep hillsides. The most thickly settled portion is on the slopes of Punch Bowl—so named from the shape of its crater—a comparatively recent cone, 500 feet high, thrown up by some expiring volcanic action between the spurs of the mountains and the ocean. At its base, a little to the westward, lies the business portion of the city; huddled on its higher slopes is the Portuguese settlement; to the

east, as far as the suburb of Waikiki, and to the west, in the mouth of Nuuanu Valley and beyond in parts of the Palama region, are the houses of the better class of citizens. One who intends to stay more than a day or two in Honolulu should drive as soon as possible to the top of this hill, because from here one can get the best idea of the topography of city and surrounding country.

The streets, in so far as the uneven character of the land permits, are laid out at right angles. Fort Street and Nuuanu Avenue running from the sea toward the mountains, and King, Hotel, and Beretania* Streets, more or less parallel to the coast, give, as being the principal thoroughfares, sufficient indication of the street plan. All, after leaving the business centre, pass between luxuriant gardens, which are never shut in by walls, but are enclosed only by low hedges, usually of red flowering hibiscus. In many parts of the city the streets are bordered with tropical flowering trees that are a glory in the late spring months. An admirable electric car service covers the entire district of Honolulu, traversing or crossing all the main streets.

This car service, which makes distance unimportant, makes also less important the situation of the hotel chosen by the tourist. In the city proper the Young Hotel, a modern stone building,

*The Hawaiian word for Britannia.

is the best. There are good hotels also at Waikiki, the New Royal Hawaiian, the Moana, Halekulani which is a cluster of charming separate cottages, Gray's Hotel, and these, with the Pleasanton and the Courtland near the mouth of Manoa Valley, are to be recommended for a prolonged stay.*

Of public buildings the first in importance is the Executive Building, formerly the Royal Palace. This stands near the centre of the city, on King Street, in its own open park. It is used now as the offices of the Governor and of Territorial officials and contains also the chambers of the Senate and House of Representatives. Built in 1880 of brick and stucco, much over-ornamented, to suit the King's ideas of beauty, it follows no recognised style of architecture, would be in any northern city amazingly ugly, but standing alone as it does, with no other buildings as contrast, approached on all four sides by short avenues of superb royal palms, surrounded by splendid great trees and gay shrubs, cream-coloured, its wide, cool galleries giving an effect of lightness, it has an appropriateness that makes it almost beautiful. It is best on public holidays, when flags and bunting, flowers and brightly dressed women give the effect of gaiety that it so often had years ago

*For list of hotels and prices see Appendix, pp. 231, 232.

when the King held public receptions or entertained his friends at native feasts. One could never take the little Court quite seriously and the impermanent "World's Fair" quality of the building that so suited the playing at royalty and that still suits the sunshine of the tropics, makes it less suitable as the theatre of legislative squabbles and as the source of heavily serious gubernatorial messages. It was as the palace of a king, unimportant in the world's sight but immensely important in his own, that the building's outward purport was best fulfilled. The interior has dignity. The entrance hall, with its portraits of kings and queens and princes, is simple and stately, as is the excellently proportioned Chamber of Representatives, formerly the throne-room, at the right of the hall. The dining-room, reception-rooms, and bedrooms have been changed beyond recognition in being remodelled to suit office needs. Around this building centres much of the later history of the Islands. It was the scene of the insurrection of 1889. On its steps the body of King Kalakaua, brought home from San Francisco, was met by the Queen Dowager and the new Queen, Liliuokalani. Here, in January, 1893, the Queen, after dissolving the legislature, let it be known that she was about to promulgate a new constitution—the fact which was the immediate cause of the revolution that resulted in the estab-

lishment of the Republic. Here, in her old throne-room, in 1895, the Queen was tried for treason. Here to-day the Territorial laws are enacted.

Opposite the Executive Building stands the Court House, formerly the Government Building, where the legislature of the Kingdom held its sessions. The Court House is a long, two-story building, its two wings connected by verandas lined with Ionic columns. In front, among the palm trees, stands the statue of Kamehameha I, a spear in his hand, the cloak of royal yellow feathers over his shoulder, and a helmet of feathers on his head. The original bronze, of which this is a replica, was lost at sea, but years later was recovered and sold to the Hawaiian Government. It now appropriately stands in Kohala, on the Island of Hawaii, the last home of the great King. These two, the Executive Building and the Court House, form the civic centre, and, with the new Federal Building, the Carnegie Library, the spacious Mission Memorial Building, and the old Mission Church, just to the east, the picturesque centre as well.

The Federal Building, adjoining the Court House, houses the various federal employees of the Territory and is the city post office as well. It was designed by Eastern architects in what is supposed to be the Spanish style, is white with a red tiled roof. It is suited to a tropical climate because of its courts and arcades but is out of

temper with its surroundings, does not look indigenous as somehow the other buildings do. Alone, with spacious grounds around it the building might not be bad; without proper surroundings, built directly on the street, it lacks dignity and appropriateness. It is neither Hawaiian nor American.

Kawaiahao Church, with the mausoleum of King Lunalilo beside it, is the impressive monument of early missionary labour. It was dedicated in 1842 and was the royal chapel until the coming of the English Mission twenty years later. Built of blocks of coral, it is in shape a rectangle. Over the main entrance is a low, square tower, which used to have an inappropriate wooden spire. White, surrounded with huge algaroba trees, through the filmy leaves of which perpetual sunlight plays, it typifies in its Puritanic dignity and rigorous simplicity the lasting work of its founders. Behind it, in a cemetery as unpretentious as they were themselves, most of these founders are buried. Beyond, in the section of the town formerly known as the Mission, what remain of their houses are clustered. One of these, the Cooke homestead, which was the first frame house built in the Islands, is now a missionary museum. The Castle homestead, greatly enlarged from the original, one-story plaster cottage, is now used by the Hawaiian Evangelical Association. What-

ever one may think of missionary work in general, whatever absurd tales one may hear of the self-seeking of these particular missionaries, the imagination and the heart must be touched by this plain old church and these pathetic little old houses where, nearly a hundred years ago, a band of devoted men and women, desperately poor, separated by six months from home and friends, gave up their lives to what they believed was God's work. That their children and their grandchildren chose, most of them, to remain in this land of their birth and to enter secular life; that they have largely guided politics and business, has been a lasting blessing to the Islands. Their presence only has made the people capable of becoming normally and naturally American citizens.

Kawaiahao, which still has the largest Hawaiian congregation in the Islands, and where the services are still conducted in the Hawaiian language, is the only church in Honolulu built in a style characteristic of the tropics, a style which should be equally characteristic of Honolulu. Central Union (corner Beretania and Punahou Streets), a non-sectarian church, the place of worship of most of the descendants of the missionaries, and the strongest numerically and financially in the city, is built of grey-blue native stone, but is modelled on the old New England meeting-house. The adaptations necessary to the tropics

largely detract from its architectural effectiveness. St. Andrew's Cathedral (Emma Street), formerly the property of the Church of England and the seat of an English bishop, who was Royal Chaplain, now under a bishop of the American Episcopal Church, is a simple and beautiful building in a style which people are pleased to call Victorian Gothic. The Roman Catholic Cathedral (Fort Street) is a plain, square coral building, which is rapidly being ruined in appearance by the application on the outside of what is believed to be Gothic ornamentation. Like all small American cities, Honolulu has, too, meeting-houses representing most of the normal and abnormal of the Christian denominations. With one or two exceptions these buildings are unsubstantial and hideous, but are fortunately inconspicuous.

The excellent school system of the city is appropriately housed. The public grammar and high school buildings, most of them comparatively new, are built according to approved methods of school-house construction, and in their outward appearance suggest a hopeful reaction in the direction of suitable architecture. They are long, low, and cool-looking, in a style adapted from the Spanish, which is admirably suited to the surroundings. One older school is established in the Bishop homestead on Emma Street, the house where Mrs. Bishop, the last of the royal line of Kamehameha,

died in 1884. It has not been changed and still looks like an expensive private house of forty years ago, but is worth a visit because of its historic associations and because of the beauty of its grounds. A little further up the same street, opposite the gloriously tropical gardens of Judge Dole, who died in 1926, are the new concrete buildings of the old royal school where formerly the chiefs were educated.

Mrs. Bishop, who was the finest type of Hawaiian woman, refused the throne to which she was heir and at her death left her large property for educational purposes. It has been used in building the Kamehameha School for Hawaiians, situated about two miles west of the city. Mr. Bishop, who was a man of power, charm, and loyalty, has supplemented her gift by adding to the school equipment a biological laboratory, by generous endowment, and by building the great Museum. Kamehameha is a semi-military school, with a membership of about 250 Hawaiian and partly Hawaiian boys. Across the street from the boys' school is situated a girls' school, with about 125 pupils. The large group of buildings of native stone, the walls covered with vines, would compare favourably with the buildings of any American school, and in their setting of trees, with the nearby mountains as a background, are unique. Here the boys are taught trades as well as ele-

mentary subjects. To see them marching to chapel in the morning, neat and manly in their grey uniforms, to watch them working at their desks or in the lathe or forge shops, or playing football on the campus, makes one understand why it is that the school turns out the most useful class of native citizens.

Another school or group of schools for Hawaiians and Orientals is the Mid-Pacific Institute, situated in Manoa Valley. The best known of this group is the Kawaiahao Seminary, now established in a large building of rough stone in a high, cool site, which is in every way preferable to the old situation on King Street, near Kawaiahao Church. This school was started by the missionaries and has educated many of the best Hawaiian women. Another school in this group is the Mills Institute, established about twenty-five years ago by Mr. F. W. Damon for the education of Chinese and Japanese youth. It has now broadened its scope to cover other nationalities. The Mid-Pacific Institute, with 400-500 students, which represents work of a semi-missionary character, occupies about 75 acres of land, and is housed in excellent stone buildings.

Among other schools is Oahu College, or, as it is familiarly called, Punahou, situated on Punahou Street, at the mouth of Manoa Valley. The city has grown out and surrounded it now, but when

the school was started by the missionaries for the education of their children and the children of other foreigners in the Islands it was well out in the country. At Punahou most of the girls and boys who go annually to American colleges are prepared. The school has well-equipped buildings in a park of 90 acres and over 700 students. The great algaroba trees at the entrance are the finest in Honolulu; there are beautiful avenues of royal palms; a pond of wonderful pink and blue water lilies; orchards of various tropical fruits; and all this in one of the coolest situations near the city. On the hill back is the splendid athletic field where most of the football and baseball games of the city are played. The Honolulu Military Academy does good work, as do also St. Andrew's Priory and Iolani College, Church schools, St. Louis College, a Roman Catholic school, and the University of Hawaii, a government institution. The University is situated at the mouth of Manoa Valley. Its buildings are dignified and its grounds laid out with much taste. Instead of the usual hedge of hibiscus, trimmed to a straight line, there is free planting around the edges of the grounds and the flowers of various colours, some waving high in the breeze, some massed near the ground, give the impression of tropical luxuriance which ought to be the aim of decorative planting throughout the city. In 1925 the University had a total of 1096

students, 417 candidates for degrees, 201 resident students who were not candidates and 478 in the extension courses. A regular college course is offered but the University, rightly, puts special emphasis on its agricultural department. The course on sugar production is admirable. The University by special arrangement with the Association of Hawaiian pineapple canners manages the experiment station of the Association, the chemical and pathological work being done at the University, the agricultural work at Wahiawa, which is one of the principal pineapple raising sections. Starting in a small way the University has developed into the leading educational institution of the Islands. Its principal aim should always be along lines of study of tropical agricultural problems and development.

Although not primarily an educational institution there should be here mentioned the Palama Settlement. This admirable institution, situated in the heart of the city, has charge of the nursing work in the community. These public nurses, covering the entire city are of value not only in uncovering diseases, but in educational hygiene. Anyone can understand the vital importance of this work in Honolulu with its mixed population, its Orientals and others who have only the most elementary if any notions at all of personal hygiene. Palama Settlement maintains clinics which

treat infantile diseases, assist in confinement cases, educate mothers and expectant mothers in the proper care of children and furnish free milk when this is necessary. It operates a dental clinic which covers all dental work in the public schools and among the poor generally, special attention being given to the children. In addition the Settlement maintains a gymnasium, Castle Field, which is a well equipped football field and playground, and a certain number of purely educational night classes. It is said by those who have studied organizations of the kind to be one of the most efficient in existence anywhere.

A building of real interest, constructed of brown tufa stone from Punch Bowl and surrounded by striking gardens, is Lunalilo Home. This was established by bequest of King Lunalilo as a home for aged and indigent Hawaiians, and here about a hundred of them live on and on. Some are blind; some deaf; all are decrepit. They sit in the sun under the palm trees and talk of times seventy years ago, quarrel happily and vociferously, and sometimes marry—these octogenarians and nonogenarians. They have plenty to eat, comfortable quarters, a weekly excursion to church in an omnibus, and, life having become something nearly approximate to Heaven, they see no valid reason for changing their state. Not seldom do they pass the century mark and not long since many

remembered, or claimed to remember, the death of the first Kamehameha.

Another monument to the generosity of a sovereign is the Queen's Hospital, near the centre of the city. In 1859, by large donations and by personal solicitation of Kamehameha IV and Queen Emma, the money for this institution was raised. It is well worth a visit on account of the beauty of its grounds, which are almost a jungle of tropical growth and contain many uncommon plants. The winding avenue of date palms could not be surpassed, and directly behind the palms are masses of most luxuriant and often sweet-smelling vegetation. If one could only look out from the jungle on wastes of golden sand instead of on busy streets it would be easy to imagine oneself in Count Landon's garden in Biskra.

There are in Honolulu two public collections of the highest importance and interest, the Bishop Museum at Kamehameha School and the Aquarium at Waikiki. The Museum, covering all aspects of the islands of the Pacific, zoological, geographical, ethnological, and historical, became, under the able management of Mr. William T. Brigham, one of the great world museums. Its collections, which are admirably arranged, are of incomparable value to the student of science, and—which is not always the case—are keenly interesting to the layman. Here one sees the ancient royal re-

galia, superb yellow feather cloaks and helmets, as well as kahilis, the great feather standards of every colour, which were the insignia of rank. These regalia, which had been inherited by Mrs. Bishop, formed the nucleus of the Museum collections. Passing from the room where these are, one sees weapons of all kinds; implements of stone and of wood and of bone; life-sized groups illustrating the tenacious but nevertheless passing customs of the Hawaiians, as well as the life of other Pacific islands; innumerable birds, many of them extinct; land-shells with their exquisite colouring; specimens of flora and of fauna. The Museum is distinctly divided into a Hawaiian and a Polynesian section, but the collections are being so rapidly augmented and are so often changed that no guide can be given. There are attendants to show people about and there are handbooks. The Museum is open daily, except Sunday, and ought not to be omitted by any one who is visiting Honolulu.

In its more limited way, the Aquarium at Wai-kiki—open every day—is of equal interest. It is said to be second in importance to the aquarium at Naples, but certainly far surpasses it in the beauty of its collection. The fish are indescribably beautiful, and some of them—which is one of the delights of an aquarium—are indescribably funny in their actions and in their expressions. And the queer Hawaiian names also are sometimes

amusing. One queer little fish, for example, is named the Humuhumunukunukuapuaa. The brilliance of their colours, the extraordinary blending and striping and spotting, seemingly impossible in their combinations, yet always resulting in harmony, might well be the life study of an artist, whether sane or "futuriste." One feels that these fish have absorbed all the vivid colours of the sun-shot tropical sea which was their home.

The Aquarium is at the edge of Kapiolani Park. Here there is a Zoo to delight the children and grown folks who have not become blasé; there are charming drives and walks along palm-lined avenues, between canals and ponds filled with red and white and blue and pink water lilies or with masses of the pale lavender water hyacinth, across rustic bridges to little islands dotted with fan palms, between masses of brilliant-leaved crotons or of hibiscus or of oleanders. And always through the trees there are glimpses of the distant blue mountains, always, when the wind is at rest, there is the murmur of the sea. The park covers about 125 acres, and with proper financial support could be made one of the loveliest gardens in existence. As it is, it looks and is unkempt; many of the plants are allowed to spread too much and are not properly cared for, but no lack of care can destroy the colour of the flowers nor the charm of the frame. The city controls other smaller parks, but in the

tropics, where every house, however humble, has its garden, there is not the imperative need for breathing space that there is in most cities, and as downtown parks Thomas Square, of five or six acres, and Emma Square, of hardly more than an acre, serve as public gardens and places for band concerts. The other public parks are laid out, therefore, primarily as playgrounds and athletic fields.

Private gardens line all the streets, their luxuriant trees and shrubbery happily masking the houses themselves, most of which make no pretense to anything but comfort. People live out of doors, and the result is that broad vine-covered verandas or "lanais"—the Hawaiian term is used universally—are the most noticeable and characteristic features of many of the houses. The glory of the gardens is their palms—royal palms and dates principally, but also wine palms and fan palms—and their flowering trees. In the spring the *Poinciana regia* makes huge flaming umbrellas of orange or scarlet or crimson; the Golden Shower, sometimes a stately tree, is hung with its thousands of loose clusters of yellow bells; the *Cacia nodossa* spreads its great sheaves of shellpink and white blossoms like a glorified apple-tree; the Pride of India is a mist of lavender. But at all times of the year these trees look well, and in addition to them there are gigantic banyans throwing cool purple masses of shade; algarobas with their feath-

ery leaves through which the sunlight is pleasantly diluted and the insignificant flowers of which supply the tons of honey exported annually to England. Near the coast the ancient indigenous hau, half-tree, half-creeper, builds natural summer-houses. So thickly does this tree grow that there is fantastic truth in Mark Twain's statement that when the hao is massed at the foot of a low cliff cattle walk from the cliff brink into its topmost branches and roost comfortably, like hens. Nor is there altogether falsehood in his other statement that the cocoanut-trees which fringe Hawaiian shores look like feather-dusters struck by lightning. They do, and yet no tree is more stately than this slender spire, crowned high in the air with its cluster of graceful leaves. Stories of monkeys throwing down the nuts are only untrue because there are no monkeys. The Hawaiians, however, run up the trees almost as monkeys would to gather the fruit. The vines in Honolulu are no less striking than are the flowering trees and are in bloom more continuously. Bougainvillea, magenta or brick-red or cherry colour, grows to the tops of the highest trees and makes mounds of colour over many an unsightly barn; the bignonia grows as an impenetrable curtain of brilliant orange; there are walls of purple or yellow alamander; the "yellow vine," another bignonia, climbing high into the trees, drops its

long, restless fringes of lemon-yellow flowers; the less common beaumontia holds up its pearl-white cups, pencilled with pink on the outside, each as large as a teacup. Other less noticeable vines, such as the ivory stephanotis and ylang-ylang, make the air about them heavy with their sweetness. And beneath all these the shrubs add still other colours. The hibiscus is cultivated as nowhere else, many working over it as the Dutch work over their tulips. The commonest form is the single scarlet, but there are single pink and white and yellow flowers, and others cut like coral and of the shade of coral. There are double ones, too, of pale chrome or vivid gold, or of pink, and white, and crimson like finest peonies. There are shrubs of all descriptions with coloured foliage; there are plumarias of white or orange-yellow growing out of bare branches that look like cactus; there are oleanders of all colours, and poinsettias that grow to the size of small trees. The stone wall around two sides of Oahu College is covered thickly with night-blooming cereus, and the spectacle on a moonlight night when thousands of the great white flowers are open at once is indescribably beautiful. Only the normal garden flowers are rare, and this not through any fault of soil or climate—Honolulu used to rival California in its roses—but because of plant pests that have been introduced from Japan and the American continent. These are

gradually being controlled, and within a few years every Honolulu garden will again be a garden of roses. Still, there are asters the year round, carnations, African daisies of all colours, most of the annuals, gladioli, and lilies, so one is not at a loss to find flowers for the house.

Perhaps the best of these private gardens are those along Nuuanu Avenue, which was settled early, and those in the vicinity of Oahu College, although this general division does not mean that there are not good gardens in all parts of the city. One of the most satisfactory places, from the picturesque point of view, is Washington Place, the home of the Governor, near the Civic Centre. It surpasses most because the house is as good as the garden, and both express the tropics. The house has wide lanais, supported by high white columns, something in the Southern colonial style, and is simple and dignified. Around it are great trees that shut away the street, that keep the house always cool. The whole has an air of retirement expressive of the attitude of the Queen whose residence it used to be.

Honolulu has grown too fast. Many of the beautiful old places have been cut up into small lots and the bungalow type of house is crowded thickly, tolerable only because usually hidden in vines and shrubs. The city has not strictly enforced its building laws, or else has never made

good ones and the result is that many streets are ugly with lines of hideous and shabby wooden shops along the sidewalks. Sometime the city fathers will wake to the fact that tourists will not come unless their surroundings are attractive and then the eye sores will be swept away. But nevertheless there are everywhere beautiful single gardens, stately avenues of royal palms, masses of colour, street after street made beautiful by the devoted work of the "Outdoor Circle." What the visitor carries away as something which can never be forgotten is not the impression so much of any single spot as of the setting of the whole; of one great garden where many men have built their habitations—a garden in an amphitheatre of glorious mountains over which march columns of clouds that gleam white against the blue of the sky; a garden looking out over a shining, tropical ocean, peaceful, happy in the sunshine; an oasis in the immense desert of the Pacific.

CHAPTER VIII

OAHU

THE Island of Oahu, halfway between Kauai and Maui, contains 598 square miles and is the third in size of the group. The shore line is extremely irregular and the Island, therefore, has more harbours than any of the others. The low coastal plains are usually uplifted coral reefs and there is also much growing coral around the Island. There are two mountain ranges, one running the length of the Island from northwest to southeast, the other forming the southwestern portion. These ranges, very differently affected by erosion, give varied scenery. Honolulu, the only important town, is the natural centre for excursions, most of which can be made by motor in a few hours.*

First to be seen are some of the many valleys cutting the leeward slope of the principal mountain range, valleys of infinite variety, and all beautiful. Of these the most accessible and thoroughly characteristic are Manoa, the first valley to the east, and Nuuanu, back of the city. Manoa

*For prices, which are regulated by law, see Appendix, p. 233.

is very broad, with an undulating floor running back to the base of the mountains, which rise abruptly. Konahuanui (3,105 feet), at the left, is the highest peak of the range, and Olympus—unfortunate misnomer—at the right, appears only a little lower. From the mountains long ridges descend gently to the plain, the sides of the valley, however, being steep and rocky. The lower part of Manoa, which is reached by the electric cars, has been completely built over, but beyond the houses are taro patches, groves of banana, masses of wild guava, and jungles of lantana. Nothing could be more serenely lovely than the semicircle of mountains, the green of all tints—yellow of kukui, neutral of lehua and ferns, and emerald of ohia—shading into blue as the hills rise higher. The trade wind clouds drifting across the summits disperse in misty showers that keep the valley always fresh and yet hardly obscure the sunlight.

Very different is Nuuanu Valley. This is a narrow cut through the mountains, affording the only route, except that around the coast, to the windward side of the Island. An excellent road winds up the valley; after it leaves the lower, inhabited part, between fields of long grass that ripple in the wind like waves, between lines of tropical trees and rocks overgrown by vines. Behind there is always the ocean and on either side, and ahead,

the mountains, apparently blocking the way. After a rain hundreds of miniature waterfalls spray over the sides of the valley, only to be blown away before reaching the bottom. Quite suddenly, about six miles from the city, one reaches the Pali, the precipice 1,200 feet high, over which the conqueror Kamehameha drove the army of the King of Oahu. On turning a sharp corner the south side of the Island is gone and one looks down on the windward coast. It is one of the most unexpected and amazingly beautiful views in the world. The narrow northern coastal plain is buttressed on one side by the abrupt precipitous mass of mountains, and on the other is washed by the sea. Little islands along the shore break the even surface of the water. The plain is dark with wild guava bushes, or tinted by the yellow-green of cane fields, or checkered with the grey of pine-apples, or cut with great red gashes where the earth is exposed. The mountains reach on and on, at first bare, bleak precipices, then torn into sombre gorges, deep purple-blue, forbidding and fascinating. One looks and looks, and the colours shift, and the islets glow more brightly or are blurred for an instant in a sudden spray of rain, and the sea changes ceaselessly like a great opal, and the surf makes white, waving fringes on the yellow sand. Gradually one becomes conscious that the road, which seemed suddenly to end, continues



Oahu College Grounds, Showing Royal Palm Avenue, and One of the
School Buildings

down the mountains, cut in tortuous line around the precipices. And then one inevitably goes on a little further in order to look back and so to get the full, overwhelming impression of the towering cliffs. Little mountains these are, when compared to the Alps, and yet in all Switzerland there is no view more wonderful, more varied, more memorable than this, because there is no view that more stirs the imagination. Later, when the scene has become a memory, one asks oneself why this is, and the answer is, perhaps, the Sea. The far, naked horizon, the tireless surge of the waters, the consciousness that for thousands of miles to the north and to the west there is nothing but this endless, breathing ocean—the power of it; and against this seemingly resistless force only the ragged volcanic mountains of a lonely island, breasting winds and waves. There is something to inspire in the thought. And then, if it was afternoon, the sun shot golden spears of light through the clouds over the western mountains, making the plain between the dark gorges and the sea all radiant, and the gold glimmered on the waves. So later one can realise that, after all, it is not the conflict, but the harmony of these elemental forces that is so impressive.

No view in Oahu is as spectacularly beautiful, as stirring, as that sudden vision from the Pali.

Others are as lovely, more peaceful, perhaps more permanently satisfying. Pre-eminent among these is the prospect from Mt. Tantalus, back of Honolulu, where people are beginning to build summer cottages. From behind Punch Bowl one road, another from near Punahou, winds upward along the lower ridges, which have been reforested with eucalyptus, Australian wattle, and other trees, skirts the last steep cone of the mountain, and loses itself in the native forest, almost a jungle, that covers a maze of tiny valleys and old volcanic cones. From the slopes of Tantalus one gets the whole sweep of ocean from Diamond Head, and beyond, to Barber's Point, the southern end of the Island. Just below, Punch Bowl holds up its empty crater. West and east from the city stretch the undulating plains with their diversity of vegetation. Far to the right is the silver line of Pearl Harbour, and beyond it the faint blue mass of the Waianae Mountains. Through trees on the nearer ridges Diamond Head stands out, yellow-brown against the metallic blue of the sea. From almost everywhere one sees it—this hill guarding the eastern approach—low, long, and kindly, dignified as an ancient, titanic lion asleep, its forepaws washed by the waves. One grows to love it and to look for it as the key-note and index of every view. At the Pali an hour at a time is enough. It is a framed picture, clear-cut

and masterly in the drawing, exciting to the imagination, but finally almost tiring in its perfection. The view from Tantalus has no frame except the horizon. One looks away from the mountains but feels them as a background. There is always something new to be discovered in the picture. There is a serenity about it that is infinitely restful. Jean Jacques Rousseau would have sobbed violently and loudly at the Pali. On Tantalus he would have smiled, if he knew how to smile, or if tears were his inevitable method of expression, they would at least have been silent, happy tears.

There are many drives or automobile trips to be made near Honolulu. One, passing through Waikiki, follows the cornice road around Diamond Head, to Waialae, with its excellent school for boys whose parents believe in military training, its wild and beautiful valley (only to be reached on horseback), and its great cocoanut groves; then back through the new residence district of Kaimuki. Good roads lead into some of the valleys and to the new residence sections on the heights to the west and the east of the city. A delightful drive is westward to Moanalua, with its queer little twin craters, one half-filled by a salt lake, its rice fields, its excellent polo ground, and its gardens, one of which, that of the late Mr. S. M. Damon, is large, admirably laid out, and

well kept, and is open to the public, as are the great private gardens of Italy.

The railway that may eventually make the circuit of the Island, after leaving Honolulu, passes through Moanalua, cuts across the cane fields of the Honolulu Plantation, makes almost the circuit of Pearl Harbour, passes Oahu and Ewa Plantations, rounds Barber's Point, and, from Waianae, follows the western shore of the Island through Waialua to Kahuku, the northwestern point, and then, turning eastward, ends about ten miles beyond the point. From the windows of the train (the left-hand side is best) one gets as good an idea of this part of the Island as can be obtained on a three-hour railroad trip. A few miles from Honolulu one reaches Pearl Harbour, with its ten or more square miles of deep water, perhaps the finest land-locked harbour in the world. Its shores are low, deeply indented, sloping gradually upward at the north and west. In places the cane fields extend to the very edge of the water. In places there are bits of almost barren plain where only *lantana* grows—the pest of the Islands, that on the mainland is so tenderly cultivated in many a garden for the sake of its pretty mauve and pink or white and scarlet flowers. In the harbour are low islands, bare, or spotted with trees and occasional houses. On the flat eastern banks are the government buildings, barracks and shops, and

the great drydock. On the Peninsula, in the western part of the harbour, is a colony of summer cottages, each with its trees and garden, where many Honolulu people go for week-ends to enjoy the excellent bathing and boating. Nothing could be prettier than the view from here, across the still water, dotted with sailboats and canoes and, now that the dredging of the entrance has made entrance possible, bearing great grey battle-ships and cruisers; across the water to the cloud-capped mountains beyond the cane fields, and far to the eastward Diamond Head, distant but still beautiful, jutting into the sea.

From Pearl Harbour the train cuts across the broad cane fields of the Ewa Plantation, fields that in the flowering season are a sea of waving pale violet plumes, like feathery pampas flowers. The huge mill and pumping stations of the plantation may be visited. Beyond, on the barren plains that slope upward to the Waianae Mountains, there are fields of sisal, each plant looking like a rosette of spears protruding from the ground. Through scrub algaroba forests, where honey bees are raised, the railroad passes around the southern end of the Island to a very narrow plain, sometimes hardly more than a causeway between mountains and ocean, and across the mouths of broad valleys which run deep into the heart of the range. In these valleys is grown

most of the cane of the Waianae Plantation. At the end of the mountains, on the western sea, is Waialua, a pretty little village between the two ranges, where, on the beach, a delightful hotel serves good luncheons and provides clean, comfortable quarters for those who can stay a few days to enjoy the splendid surf bathing or to go goat shooting in the mountains. The view of Kaala, with its surrounding peaks and gorges, is very good from the beach in front of Haleiwa Hotel. The Waialua Plantation is large and is, for Oahu, unusually picturesque on account of the hills and ravines over which the cane grows. The ditches which carry water from the mountains, and the reservoir supplying them, are interesting pieces of engineering work.

Beyond Waialua, again along the narrow seaboard, the surf dashes almost to the windows of the cars. The mountains, not so high, are more rugged and barren. Over the rocks in more than one place one catches glimpses of the tops of eucalyptus trees and fields of pineapples. Along the rocky shore Hawaiian fishermen are often seen, bronze in colour, dressed only in the ancient loin cloth, casting their nets into the waves. They come probably from Waimea, where, in a valley a few miles beyond Waialua, is one of the few remaining primitive

Hawaiian settlements. In this valley Lieutenant Hergst, of the British supply ship *Doedalus*, and his companion, Mr. Gooch, were murdered. Their ship had stopped for water and the two had wandered inland to explore the country. It was at a time (1792) when the Hawaiians were particularly bitter against foreigners. The little valley, with its ruined temple and its grass houses, is more typical of Hawaii before 1800 than anything in the Island. The air grows cooler as the hills recede, the breeze fresher, until, at the north point of the Island, there is a steady, strong wind blowing in across the ocean from the northeast, a wind full of life, a sea wind, purer than any other. It tatters the leaves of the cane on the Kahuku Plantation, but does not hurt the cane itself, and the moisture of it brings out all the colours in trees and flowers. It is this pure sea air more than anything else—this, and the wonderful bathing—which induces more and more Honolulu people to build summer cottages along this shore.

The automobile road from Honolulu around the Island follows the line of the railroad to Kahuku, except from Pearl Harbour to Waialua, where, instead of following the coast, it crosses the plateau between the two mountain ranges. Here, at an altitude of about 1,000 feet, are stationed U. S. Cavalry, Artillery and Infantry, and at almost all hours of the day troops may be seen

drilling on some part of the plain. On the other side of the road from the encampment are thousands of acres of pineapples, the fruit from which is sent to all parts of the world. Further on, the road climbs down and up again through grim, barren gorges that have been torn out by centuries of sudden rainstorms. The largest of these gulches is Kipapa, the scene of one of the bloodiest of ancient battles. Beyond the dam which holds back the water for the Waialua Plantation the road descends in long turns to the Haleiwa Hotel, and from here to Kahuku follows once more the line of the railroad.

The northern point of the Island marks the end of the first half of the one-day automobile trip of ninety miles around this part of the Island. It is, perhaps, the more varied, but certainly the less beautiful half of a trip that in European guidebooks would be double starred. Six miles beyond Kahuku the road passes Laie, the Mormon settlement. Several hundred Mormons live here, most of them Hawaiians, who raise sugar cane to be ground at the Kahuku mill. They have recently completed a temple, Egyptian in spirit, admirably placed, beautifully planted, forming a really lovely picture. The coast soon becomes narrower; the mountains rise more perpendicularly; the valleys are more like cañons. One of them, Kaliuwaa, is so narrow that at the base of the

waterfall at its southern end only a thin lozenge of sky is visible. A side excursion on foot to this valley is well worth the rough walk of about two miles. It is filled with ohia trees, which are often laden with their red, somewhat tasteless, but cool and refreshing fruit. Natives, on entering the gorge, always pick the large polished leaves of the ohia and lay them crossed on the ground as a charm to prevent rocks falling from the cliffs. The waterfall itself is thin and high, sliding in a groove down the solid rock. There is a legend to account for this groove that the demigod Kama-puaa, in trying to escape from a king who was chasing him for stealing chickens, fled into the valley and, reaching its precipitous end, dragged his canoe up the face of the rock, thus marking it forever.

The ocean on this northern side of the Island seems to be of a quite different character. Instead of a choppy sea, variegated in colour, as on the southern shore, it is an even, deep blue, and stately billows like those in mid-ocean roll in, to sweep noiselessly over the broad beaches of white sand. The hills press more and more closely to the water, except where the flat valley bottoms give space for the cultivation of rice and taro. Glimpses up these valleys reveal a more luxuriant vegetation than on the leeward slopes, because the mountains intercept much of the rainfall.

It is not until reaching Kualoa Point that one gets the most glorious view—the reverse of that seen from Nuuanu Pali. Kaneohe Bay, deep, protected by coral reefs, and dotted with islands, many of which are the peaks of submerged volcanic hills, lies straight ahead beyond another, shorter point. Between sea and mountains is a broken plain. There are no more valleys, the mountains rising like a continuous, blue, crenellated wall to beat back the wind and to catch the water in the clouds that drift in from sea. This wall of rock, which, beyond the Pali, reaches out into the sea at Mokapu Point, looks almost semicircular, and it is possible that instead of being the work of erosion only, it is the magnificent ruins of some stupendous ancient crater, the other half of which has sunk into the sea. The less spectacular theory, that it is the result of centuries of beating by wind and rain, may be true, but whatever the causes the final panorama is superb.

The road clings to the shore. The mountains grow more and more impressive, partly through contrast, as they are seen across the tender green of rice fields or the grey of pineapples, partly because they really become higher as one travels southeastward. More and more is the imagination stirred; more and more is there mystery in the blacker shadows that reach over the plain. One believes the Hawaiian legend that on a certain

night of every year the conqueror Kamehameha marches with his ghostly army along the face of these hills and that all those who see the glimmer of the spears in the moonlight and who hear the trampling of the feet must surely die. At Ahuimanu—in English the “gathering place of birds”—there is an old house, at the end of a branch road leading for a couple of miles directly away from the shore. It was built by the first French Bishop of Honolulu as a place to which he might retire for meditation and prayer. It stands close to the foot of the precipices and is shadowed with aged trees. From its windows one looks up and up until the rocks are hidden in the clouds. They might reach the sky for all one knows, and one very soon gets to believe that they do. Only for a few hours does the sun reach this solitary farmhouse. The only sounds are the murmur of streams and the roar of the wind as it strikes the mountain wall. It is a sombre spot in a way, and yet there is an unworldly, almost superhuman fascination about it that somehow sets off this secluded corner of the Island as something quite apart from all the rest. It is shut in, a place in which to dream—the Bishop knew what he was doing when he built—whereas the southern slopes are full of sunshine in which are all the simple realities of life.

The road turns away from the sea at last,

crosses a plain covered with pineapples and leads straight toward the precipice, which is no less abrupt here than elsewhere, though not so high. The ascent would seem impossible were it not that one can see the road—a line twisting and turning around the rough face of the rocks. And a good road it proves to be, in spite of the hairpin turns, which in late years have been eliminated as much as is humanly possible. As one ascends the view grows broader, less detailed, more full of blending colours. The wind roars through the gap above. A long curve around the face of the cliff that juts out from the main range, rocks rising perpendicularly at the left of the road and at the right descending in a sheer drop of several hundred feet, one last look over blue ocean, variegated plain, and dark blue mountains, and then suddenly through the gap with the wind and before one lies peaceful Nuuanu Valley, descending gently to the city and the southern sea. In an instant the whole character of the scene has changed. It is no longer grand, but lovely; black mountain shadows are left behind, and before are sunshine and waving yellow grasses. No one since Dr. Johnson, with his definition of mountains as “considerable protuberances,” could make the circuit of Oahu without enthusiasm, and even Dr. Johnson, though he pretended to despise, had a habit of seeking out wild scenery in which to spend his

holidays. No motor excursion of a hundred miles covers more varied or more beautiful country than does this.

The trip around the shorter, southeastern end of the Island can only be made as a whole on horseback, since the Waimanalo Pali at the eastern point has only a trail across it. It is an interesting drive, however, along the shore eastward from Honolulu. Beyond Diamond Head is the wide, sandy plain of Waialae, with its algaroba trees and its cocoanuts; back of it deep valleys cut into the mountains. Beyond, at Niu, which is the last of the fertile valleys, there are interesting ancient burial caves easily reached from the road by a five minutes' scramble up the ridge. Koko Head, like Diamond Head and Punch Bowl, an old mud volcano, here juts into the ocean. From it, unless the day is misty, one gets a good view of the Island of Molokai across the channel, of the little Island of Lanai, with the higher mountains of west Maui between. Koko Head itself is absolutely barren, as is the land beyond it, a mass of rocks and lava sand. Just under Koko Head to the east is a wonderful little horseshoe-shaped bay, very deep and often very rough, as the waves from the channel sweep through its narrow mouth. This is a favourite goal for the exciting sport of shark fishing. The sharks are caught with spears attached to heavy cord and, after being speared,

make a tremendous fight for liberty. Very few of them are man-eaters, but the possibility of only one makes a man as cautious about swimming in an unprotected bay like this as the presence of a single man-eating tiger would make him cautious about wandering through the woods at night. Fortunately the shark hates shallow water, since in it he must turn over, either to attack or to defend himself, and the result is that no sharks cross the coral reefs which protect many parts of the Islands. Swimming at Waikiki and at other bathing resorts is, therefore, as safe as swimming in Y. M. C. A. pools. A story widely believed that sharks attack only white men, avoiding the dark-skinned natives, is false. The natives certainly are less easily seen in the water, and the legend may have arisen from the fact that the Hawaiians are fearless. They are marvellous swimmers and will sometimes dive under a shark and stab it in the belly, the only vulnerable part, except the nose. The fact remains, however, as has been sadly proved more than once, that if a man-eater happens to see a Hawaiian who has got too far away from his canoe no agility can save him.

Beyond Koko Head a new carriage road winds upward over the wild desolation of rocks to the hill above the great lighthouse at Makapuu Point, at the extreme eastern end of the Island. From here the roughest kind of trail leads down the

Waimanalo Pali, directly over the water. Soon after reaching the bottom of the cliffs the trail strikes another macadam road that winds over a beautiful rolling seaboard and then, avoiding the cape which marks the eastern boundary of the great Koolau half-basin, strikes back through the hills to the foot of Nuuanu Pali. This trip is a very short one as compared to that around the northern end of the Island—thirty miles as against nearly a hundred—but takes as long on account of the difficult pass. It is perhaps as beautiful, but is somewhat a repetition of the other trip, except for the barren plains beyond Koko Head. The trip to Waimanalo may best be taken as a side trip from the foot of Nuuanu Pali, and the excursion to the lighthouse and back to Honolulu made on a separate day, thus avoiding the really dangerous trail at Makapuu Point.

For those able to take rough walks Oahu offers innumerable opportunities. First and easiest, because of the good trails, are the many tramps that can be taken in the vicinity of Mt. Tantalus, back of Honolulu. An excellent trail branches to the left from the Tantalus Road just behind Punch Bowl. It follows the right-hand ridge of Pauoa, a shallow valley that extends only two or three miles into the mountains. Across the valley, on the western ridge, is Pacific Heights, a recently

formed residence section, reached by a good road. The bottom of the valley is lovely to look down upon, with its kitchen gardens and its bright green taro patches, the whole terraced and laid out in rectangles. The trail winds along the face of the ridge, now in the open, now through bits of forest; drops a little to cross the marshy plateau, overgrown with guavas, at the head of the valley; turns to the left, climbs again for a short distance, and comes out suddenly and unexpectedly over Nuuanu Valley, about two-thirds of the way from Honolulu to the Pali. Here there is an almost sheer drop of a thousand feet or more, which is, however, overgrown with trees and ferns and vines. The view of the valley is superb, and looking to the right one can see through the gap to the ocean on the other side of the Island. From here the trail turns toward the mountains again and continues northeastward, always overlooking Nuuanu Valley or the gorges that lead into it, and always winding its way upward through magnificent native forests. There are great kukui trees with leaves like the maple, but larger and cream coloured underneath; huge ferns that arch their fronds over the path; the ie-ie vine with its yellow candles surrounded by whorls of scarlet leaves; clumps of wild bananas; lehua trees with their flowers like pink flames; shrubs of mokihana, the berries and leaves of which are as sweet and



Waianae Mountains Across Rice Field, Oahu

as pungent as lavender. At last the path emerges from the forest on to a knife-like ridge that leads to the main mountain mass. Here one looks down a dizzy height into Nuuanu on one side, southward over the maze of hills back of Tantalus, and on the other side into Manoa Valley and the distant round crater of Diamond Head. Straight ahead is the peak of Konahuanui, a hard but safe climb of an hour, with a clearly defined trail. From Honolulu to the foot of the peak and back would take five to six hours. From here another path leads around the head of Manoa Valley to Olympus and so, with a stiff but wonderful climb, down the windward side of the range into Koolau. This trip, returning by way of Nuuanu Pali, is a long day's tramp. Another trail branches off after passing the head of Manoa, and crossing a knife ridge—not safe for those unused to mountain climbing—leads into the head of Palolo Valley and to a queer little crater, overgrown with ferns, which seems lost in the mountains. From here this trail turns south and leads along the ridge to Kaimuki, a new residence section back of Diamond Head. The round trip takes about nine hours.*

These are only a few of hundreds of invigorating walks, but there are few others with well-defined trails. The mountains are public lands; there is

*Some of these trails have been abandoned because so much of the land has been set aside as forest reserve.

little danger of getting lost or of running into serious difficulty, unless one actually attempts to cross the range. The only rule when in doubt as to the way home is to go toward the sea—in general southwestward—and always to keep on top of the ridges. This may mean an occasional long detour, but the valley bottoms are almost certain to have waterfalls which are quite impassable. It is always a temptation to go down into the valley, where the way looks easier, but it means invariably a very hard climb to get back again to the top of the ridge. Although the greatest altitude is only 4,000 feet, the peaks are steep, and many of them give real mountain work. On the main range these peaks are usually covered with ferns, vines, and tough shrubs, which make the climbing easier for the amateur, but not safer, because he is more careless. In the Waianae Range many of the points are of bare rock that is a test for the most expert. From the northeast side of the Island the precipices are inaccessible, except in a very few places, but from any point on the southern and western sides the crest of the range can be reached by walkers who are willing to fight their way through masses of undergrowth—an undertaking safe in almost no other tropical country. For the strong walker the field is, therefore, almost inexhaustible.

Aside from Honolulu itself, and the drives in

its environs, there is one trip, that around the Island by automobile, which should not be missed by any one who visits the Territory. Omitting the walks, there is certainly enough to fill every moment of one's time for a week, but only those who stay longer and who are willing to go out of the beaten track can realise the full beauty of Oahu or understand its charm.

CHAPTER IX

KAUAI

KAUAI, the most northerly island of the group, a steamer trip of one night from Honolulu, has an area of 547 square miles. It is very nearly circular, has a regular shore line, without important harbours, and is made up of the mountain mass of Waialeale, 6,000 feet high. This is not, however, a great dome like any one of the mountains on Hawaii. Kauai is geologically the oldest of the islands, and as a result its mountain has been cut by erosion into hundreds of separate peaks and valleys. The soil washed down has formed lowlands near the shore, except on the northwest side, where there are great sea cliffs of naked rock rising to a height of 2,000 feet. The west central part of the Island is an enormous bog, so nearly impassable that it makes the ascent of the central peak extremely difficult. It forms, however, an inexhaustible watershed for the southern and southwestern slopes. Over this bog there is usually dense fog—practically the only fog in the Islands—a characteristic which makes exploration of the interior even more difficult. Indeed very little was known of it until recently, when the

plantations penetrated inland in search of a permanent water supply. The northern part of the Island is very rainy, Hanalei having a rainfall equal to that of Hilo. The Island used to be densely wooded, but there are at present no forests except on the higher mountain slopes, as cattle first destroyed them on the lowlands and the ground has since been appropriated for the cultivation of sugar, rice, and pineapples. Abundant rainfall or water supply, combined with the extreme fertility of the soil, keeps everything green, and has rightly given to Kauai the name of the Garden Island. As the roads are excellent and the distances short, the principal points of interest can be covered in a five-day round trip from Honolulu, a trip tremendously worth taking by those who are not afraid of a rough night at sea. There are comfortable hotels at Hanalei, Lihue, and Waimea.

Landing at Waimea, on the southwestern side of the Island, where Captain Cook first stepped on Hawaiian territory, arrangements can readily be made for seeing the Island. Short excursions may be taken from Waimea itself as follows: Fifteen miles to the northwest, over a good road, at the extreme western point of the Island, are a line of windblown sand hills called the Barking Sands. The wind on the sands makes them rustle like silk; to slide down them produces a sound like thunder;

to stamp on them makes them cry out in different cadences. This sand is a natural curiosity existing in very few places, and is amusing to grown people as well as to children. Near the sands, at Polihale, is a famous old Hawaiian bathing beach—one of the “lucky places”—which, besides being an ideal place for a swim, is still supposed by the natives to bring special good fortune to all who enter the water. The great upland plains beyond, one of the driest and most beautiful spots in the Islands, may soon be set aside as a permanent Government reserve. Another trip, which takes the better part of a day, is back through the Waimea Gulch as far as Puukapele, 3,600 feet high, where is obtained the best view of the surrounding country. This valley, originally a fissure in the mountain, cuts across all the ridges that run southwest from the central mass and leads far into the interior of the Island. The trip, which must be made on horseback, leads through magnificent scenery, between the mighty walls of the valley, which, on account of the vivid colourings of the rocks, has been called the Grand Cañon of the Colorado in miniature. The cañon part of the valley is 3,000 feet deep and about a mile wide, the sides precipitous, ending in sharp peaks and cut by grim gorges. In the decomposing rocks the colours are as vivid as though volcanic fires were still at work. Another excursion of six

miles, which can be made by motor, is to the Olokele Ditch, the great engineering work that revealed the Olokele Cañon, the existence of which was barely known a few years ago. The last part of the ditch is a six-mile tunnel carried through the precipices on the sides of the valley. The road which leads to the valley only allows one to look down into the cañon, with its bluffs of painted rock rising from the narrow, twisting gorge at the bottom. This, too, is suggestive of the Grand Cañon, except for the trees which somehow cling to its almost perpendicular sides wherever a crevice gives a chance for their roots to take hold. At Waimea itself, a picturesquely situated village, which used to be the capital of the Island and had a large native population, there is little of particular interest except the ruins of the Russian fort on the headland overlooking the harbour. This was built in 1815 by Russian traders, ostensibly for the King of Kauai, but over it flew the Russian flag, and it was undoubtedly intended as the first step toward annexation of the Island by Russia.

An excellent road leads from Waimea southeastward and eastward to Lihue. It passes first through Makaweli, the largest plantation in the Island, and the second of those forming a belt around it. This plantation occupies land which was originally a dry plain, but water was brought from the Hanapepe Valley and by ditch from the

Olokele Cañon, and there is now abundance at all seasons of the year. A motor road leads five miles into the Hanapepe Valley, and an easy trail of five miles more brings one to the Falls, which are very beautiful, as they have a large volume of water and are 250 feet high. Beyond Hanapepe the main road turns inland, but at Lawai a branch road leads southeast to serve the pretty little village of Koloa, passing first through the eight miles of property of the McBride Sugar Company.

This was among the first plantations seriously to introduce small homesteading among its employees. Part of the uplands back of the plantation was divided into five-acre lots, which were assigned to European immigrants on terms of very easy payment. These homesteads, on which pineapples are the principal crop, are cultivated largely by the women and children, while father and older boys work in the plantation fields. Indeed, on most of the Kauai plantations this plan of homesteading, or some form of co-operative labour, has been tried with striking success. At the Kilauea Plantation, on the north side of the Island, there are Portuguese labourers who have been connected with the property for over thirty years. This homesteading has been gradually extended over the Islands. The most successful at present is at Wailea, on the island of Hawaii where Portuguese homesteaders produce through

an independent mill an average of 4,000 tons of sugar annually. An interesting experiment is also being conducted by the Hawaiian Homes Commission on the island of Molokai, in this case the homesteads being open only to Hawaiians or part Hawaiians. A large number of families, comprising 278 people, have been settled on the land, most of them engaged in general farming, their greatest drawback being lack of proper marketing facilities. All the various experiments need careful watching and encouragement and fortunately this is available since support of homesteading is the policy of the present administration and strongly that of the Republican Party. It is believed that as wide an extension of this policy as available land will permit will do more than anything else to develop the sturdy, resourceful and independent type of citizenship which is needed in the Territory.

The village of Koloa is in itself uninteresting, but two miles from it is the Spouting Horn, a curious rock formation on the shore, where the waves rush into a cave and force intermittent jets of water high into the air through a narrow crevice above the inner end. It is much more active than are most spouting horns, and is a perpetual fountain well worth seeing. The Haupu, or Hoary Head Ridge, 2,000 feet high, runs eastward from the central mountain to the sea, and

the end of it, the highest point, forms a bold promontory rising perpendicularly out of the ocean a few miles south of Lihue. This ridge, which was formerly part of the backbone of the mountain, has been intersected by erosion and through this gap runs the main road to the eastern side of the Island.

Lihue itself, twenty-six miles from Waimea, is the county seat. The town, which has a large German settlement, is beautifully situated on both banks of the Nawiliwili Gulch. Back of it is a curious tufa cone, the Kilohana crater, which was thrown up long after volcanic activity had ceased, indeed after erosion had done much of its work. Material ejected from this crater covered the region for a radius of several miles, so that streams had to make new channels for themselves, flowing finally into the rivers to the north and to the south. From this cone, which is easily accessible on horse-back or on foot, there is a splendid panorama of ocean and mountain, cultivated field and forest, of the whole lovely plain that makes the east side of the Island. A few miles north of Lihue the Wailua Valley is noted for its beautiful waterfalls, and both the upper and lower falls, with their surrounding of verdure-covered crags, well repay the agreeable automobile excursion necessary to visit them. The lower part of the river is navigable for small boats, and canoe trips between

its banks, that are overgrown with shrubs and vines to the edge of the water, are always popular with residents of Lihue. Perhaps this is even more so since the drive of six miles to the mouth of the river is one of the finest of the many marine drives in the Islands.

This is the first part of the excellent automobile road that follows the shore for thirty-four miles to Hanalei. It leads northward through rice fields and plantations, past Anahola, where rugged, inaccessible bluffs meet the beating of waves and the strong sweep of trade winds at the northeastern corner of the Island, to Kilauea, and then turns westward, following the northern shore. Hanalei, a thriving village, is one of the most picturesque spots to be found anywhere. Like Waimea and Lihue, it may be reached by steamer direct from Honolulu, and, with its good hotel, is a comfortable centre for excursions. From the steamer one looks up the broad, fertile valley that extends between its steep boundaries for miles back into the mountains. Down its sides fall innumerable silver, thread-like waterfalls, that now disappear behind thick foliage, now leap over sheer precipices, to dissolve in mist before they reach the floor of the valley. Perhaps the loveliest view, however, is that looking down from the east bank as one approaches from Lihue, because here one gets the full expanse of the level valley bottom,

with its broad river, the largest in the Islands, winding serenely between fields of vivid green rice, between little clusters of Hawaiian houses, where the natives have lived for generations and still live, peacefully unconscious of the march of civilisation, of the turmoil of the world outside. One overlooks also the horseshoe bay, with the ocean beyond, and to the left sees deep into the verdure-covered valleys, over the ridges to the cloud-capped mountain in the distance. At Hanalei is another famous bathing beach, and for those who prefer there is here also good fresh-water swimming in the river.

A beautiful drive westward leads, after five miles, to the mouth of the glorious Wainiha Valley. Before reaching it, however, one crosses, on a bridge, the stream of the Lumahai Valley. This bridge has done away with the last of the old ferries, which were formerly a characteristic feature of travel on Kauai. It is a region of legend. The Waikoko River—the Water of Blood—recalls by its name a sanguinary battle of ancient times. The Wainiha Valley is one of the finest and deepest of Hawaiian cañons. It cuts into the mountain for some fifteen miles, almost intersecting the highest point of the Island and reaching nearly to the head-waters of the Olokele and Hanapepe streams, which flow into the sea on the other side of the Island. Toward the upper part of Wainiha

the perpendicular rock walls are four thousand and more feet in height. Nowhere in the Islands, except in west Maui, is there such a titanic fissure in the mountains, nowhere more stupendous precipices. A motor road extends a few miles into the valley and is continued for several miles by a trail which at one point leads up the western ridge to a height of about 4,000 feet. At the end of the carriage road is the station of the Kauai Electric Company, which sends power through its wires, strung on poles, to all parts of the Island. So excellent is the plant that electricity is used commercially in Kauai to a far greater extent than elsewhere in the group, many of the pumping stations on the southern shores being run by power from Wainiha. A splendid tramp of a day or two may be taken through the wildest of tropical forests along this pole-line, the best access to the trail being, however, from Lihue on the southeast. Walkers should bear in mind that on Kauai it is wise always to keep to well-defined trails or to take a guide, since the formation of the Island is such that it is very easy to get lost. Just beyond the Wainiha Valley, and reached by a good carriage road, is Haena Point, with its interesting caves. They are at sea level and extend for a long distance through old lava channels under the cliffs. One is filled with fresh water. The rock formations of the sides and the roofs are fantastic, with

their queer stalactites and their rope-like columns of twisted lava that might almost have served as models for the columns in the cloister of St. Paul's outside the walls of Rome. The light refracted through the water is wonderfully softened and coloured, just as it is in the grottoes at Capri. In one of the caves a canoe has been placed for the use of visitors. The carriage road extends only a mile or two beyond the Point, reaching then the wild, precipitous, and little explored section of the Island known as Napali.

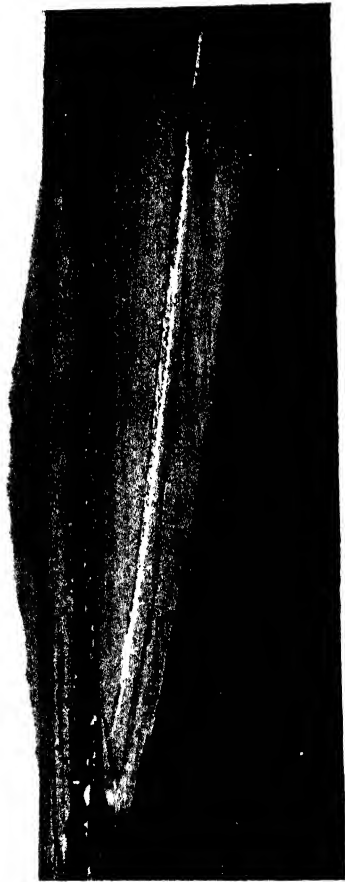
Here the cliffs, in places over 2,000 feet high, fall sheer into the sea, leaving not a vestige even of beach, nor a pathway along the water. These cliffs are cut by innumerable ragged gorges, which extend, however, only a short distance inland, ending abruptly at the ridge back of the Wainiha Valley and a little further south at that back of the Waimea Valley. At the heads of these gorges are often broad basins, like little craters, and along their precipitous sides are spires of rock like the needles of the Alps, both the effect of erosion. Toward the southern part of this region the gorges become the narrowest of cañons, entering the sea through mere slits in the rocky wall. The Kalalau Valley, the most important in Napali, and in the centre of the section, used to have a large, if isolated, population, but to-day only a few poor huts are left. A favourite tramp from Hanalei is

along the shore penetrating Napali as far as Hanakapiai. Beyond this point the trail is very difficult, but runs on, up and down across the gorges as far as the Kalalau Valley. From here the only possible way to continue around the Island is by canoe for seven or eight miles to the end of the cliffs. The canoe trip of twenty miles along the whole of the district is a thrilling experience, but can, of course, be taken only in the calmest weather. Occasionally one of the inter-island steamers makes the circuit of Kauai, and no trip in the Islands can show finer scenery. The bluffs and cañons are all bare of vegetation near the sea—walls and towers of ancient rock, awe-inspiring in their majesty and in their solitude. They are of lava, weathered by the ages into grey and purple and yellow and orange. In the pockets are patches of bright red soil, and here and there huge rocks protrude that are black and glistening, like coal. From the ocean one sees back of all this desolation the green of the forests and the yellow of upland grasses half hidden in the mountain mists. Napali is an ideal region for the sportsman. (A shooting permit is necessary and should be obtained in Lihue.) Wild goats climb over all the ridges. The shores swarm with fish. Camping trips are always practicable; the natives are always friendly, willing for small pay to act as guides, packers, and cooks. The district

is perhaps the wildest in the Island, as little known as any, magnificent in its scenery, which is so different from any other, so insistently suggestive of solitude and of remoteness from the world, that the Hawaiians have invested almost every part of it with some strange legend of the ancient gods and demigods.

The excellent road, already ninety miles long, would ultimately circle the Island were it not for the thirty miles or more of the impassable cliffs and gorges of the Napali region. The trip around the entire Island can be made only, therefore, if the sea is calm enough to permit of a long canoe trip, but as elsewhere the roads are excellent, Kauai is an ideal place for driving and motoring. Regular excursions are arranged in connection with the sailings of the inter-island steamers, and these give a good impression of the country. The climate is so pleasant, however, the scenery so fine, and the people so hospitable, that Kauai is the best of the Islands for camping trips and it is only by getting back into the mountains that one comes to understand the charm of the old Hawaiian life, to realise the enthusiasm of Kauai people for their own land, and to appreciate the name they have given it of the Garden Island.

The little island of Niihau, a part of the county of Kauai, lying seventeen miles west of the larger island, and containing 97 square miles, is a private



Hilo Bay and Town, Mauna Kea, 14,000 Feet High, in the Background

estate, used largely for ranching purposes. Only a few people live on it now, but it must have been an important centre of population in 1778, as Captain Cook's ships remained there for several days taking on water and provisions. Niihau is principally known to the outsider to-day for the chains made from tiny white shells which are found on the beaches, and for the Niihau mats. The Hawaiians braid large quantities of mats, but none are so soft and fine as those made from the rushes which grow in the marshes of this insignificant island.

CHAPTER X

MOLOKAI AND MAUI

THE channel between Oahu and Molokai is twenty-three miles wide. Steamers to Maui and Hawaii cross it and then skirt the lee shore of Molokai, which is an island forty miles long and only ten wide. This lee shore, by far the less interesting, is the only one usually seen by travellers. Some fortunate tourist who has his own yacht and is not afraid of rough weather could spend a delightful week circling the island of Molokai. The cliffs on the north shore are magnificent and the valleys mysterious, full of legend, crowded with superb tropical vegetation, inhabited by a few primitive Hawaiians who speak no English. This is Hawaii as it was before the voyage of Captain Cook, the last unspoiled relic of ancient times—so perhaps it would be kinder for the tourist to keep the beaten path. There is much on Molokai that is of real interest, but there are no hotels, no dependable roads, so that the only practicable way to visit it is on a camping expedition. For this arrangements must be made at Honolulu, where shooting permits must also be obtained. Hunting is excellent, as the Island is full of game.

The west end of Molokai is comparatively bar-

ren for lack of water, being in general occupied as a cattle and sheep ranch. The landing for this part of the Island, and indeed the natural centre for all excursions, is Kaunakakai, a dreary and desolate village surrounded by dusty and withered scrub algaroba. The east end of the Island is fertile, and here the mountains rise to a height of about 5,000 feet. The southern shore is protected by coral reefs, which in two or three places have formed good harbours. Along this shore fishing is still an important industry, although the walls of the ancient fish ponds, which can be seen from the hills, have either sunk below the surface of the water or have fallen to pieces. Along the north shore the bluffs drop into the sea, being especially fine on the northeastern side, where a large part of the mountains must have broken off and disappeared in the ocean. In this region, in two magnificent valleys hardly accessible except from the sea, Pelekunu and Wailau, there are settlements of Hawaiians who live much as they lived before the discovery of the Islands. They even keep many of the ancient traditions which are elsewhere lost, and indeed throughout the Island the natives are inclined to be superstitious. The powerful Poison God, saved somehow from the burning of idols in 1819, was kept on Molokai by a priest, or kahuna, until the latter part of the nineteenth century. The power of this god to

bring sickness and death has never been satisfactorily explained. It probably was made—it may still be in existence—of some extremely poisonous wood, which only the kahuna knew how to handle safely. Certain it is that its effects cannot be explained as the result only of the imagination. In these lonely valleys the natives make a living by raising taro for the Leper Settlement. This settlement, which gives to Molokai its melancholy celebrity, is on a triangle of land, made probably by some ancient lava flow, which juts into the sea on the north of the Island. A steep and dangerous path, always guarded, leads up the bluff behind it, and is the only means of access to the rest of the Island. The lepers carry on a certain amount of agricultural work themselves, but are really supported by the Government. Their houses are comfortable; the hospitals are of the best; everything is done to make the unfortunate people happy. The Settlement is very pretty as one sees it from the deck of a steamer or looks down on it from the hills, but it is a spot too sad to be visited by any but medical men, who go for the purpose of information. For the ordinary traveller it is a place to avoid as he would avoid the leprosarium at Panama or anywhere else.

To the hunter Molokai is most alluring. Landing at Kaunakakai, he may, if he is a friend

of the owners of the Moloka Ranch, hunt deer among the algaroba groves fringing the shore. Hither the deer have been driven to save the native woods in the mountains. Or else he goes eastward, where the mountains are higher and the gulches more precipitous, where wild goats scramble over the highest rocks and give an opportunity for really skilful shooting. From these peaks the views are marvellous—the rocky coast to the south, with its lines of ancient fish ponds under the shallow water; endless cliffs and gorges to the north, inaccessible, tremendous; the misty mountains of Oahu to the northwest; and to the east the fine serrated pile of west Maui across a narrow blue-black strip of water. It is to this Island, since Molokai lacks roads and inns, that the traveller naturally proceeds.

Maui is, in size, the second island of the group, containing 728 square miles. It is really a double island, the northwestern and much smaller part being as old as Oahu, or perhaps as Kauai, and showing, therefore, great erosion; the southeastern, comparatively recent part, being entirely taken up by the great and only superficially eroded dome of Haleakala. These two parts are connected by a low plain or isthmus, formed by lava flows from the east, which gradually filled the channel that originally separated the two

islands. On this low plain are sand dunes, sometimes 100 feet high, which, before the plain was cultivated, used to move slowly across from north to south as they were driven by the wind. The Island has a population of 36,000, and on it are some of the most important of the Hawaiian plantations. Industries are diversified and experiments with new crops are continually being made. There is already extensive pineapple planting above Haiku on the northern slope of Haleakala, and in the region to the east large rubber plantations have been set out. There is no carriage road around the Island, although one is in process of construction, and some of the finest scenery is, therefore, accessible only on horseback.

The first landing on Maui is Lahaina, an open roadstead on the west coast, which is, however, well protected, except during the rare Kona or southwesterly storms. The district, although having little rainfall, is watered by streams from the high mountains behind. The village of Lahaina, the oldest white settlement in the Islands, used to be the capital of the group. Its prosperity was due to the fact that it was the regular port of call for whaling ships, of which there were sometimes fifty or more anchored off shore. This prosperity was, however, precarious, and brought with it disease and death, since the sailors were allowed free run of the town without any kind

of supervision on the part of the ship captains. It was here, therefore, that the most acute of the troubles occurred when the King promulgated laws against vice. The village has dwindled away and is now strung out along the shore, most of its original site being occupied by the cane fields of the Pioneer Mill Company. Some two miles above the town the Lahainaluna Seminary, established in 1831, still maintains its position among the most successful of the Hawaiian industrial schools. The old missionary home, now maintained as a social settlement, in its grove of ancient trees, is a picturesque landmark of elder days. Aside from its beautiful situation and its dry, temperate climate, there is little to detain one long in Lahaina.

Northward, a carriage road follows the shore to Honolulu, where there is a large cattle ranch. The scenery along this road is fine, with mountains rising ruggedly at the right and the blue peaks of Molokai thrusting themselves up from the water across the narrow channel. Beyond the end of the road, as one nears the northern point of the Island, the general formation of the cliffs and valleys is something like that of the Napali section on Kauai, but the precipices are neither as high nor as vividly coloured, and they lack the sense of remoteness and of solitary grandeur which makes Napali unique. Sometime the road will con-

tinue around to Wailuku, but at present the trip can only be taken on horseback, a ride of about fifteen miles through a wild country, which is cut into tremendous gorges and crowned with innumerable pinnacles of bare rock. The regular automobile road from Lahaina to Wailuku, a distance of twenty-three miles, leads along the shore to the southeast. After passing a small sugar plantation, Olowalu, it winds along high above the sea, its line cut in the face of the steep, barren hills, climbs the shoulder of the mountain—always as near the ocean as possible—before dropping to the isthmus which connects the two parts of the Island. The view from the top of this shoulder is magnificent. Below are miles of level country covered by the cane of the Hawaiian Commercial Sugar Company, the largest sugar plantation in the Islands. The extent of the fields makes it easy to realise that the Plantation produces 60,000 tons of sugar every year. The different fields make great blotches of different shades of green, those in flower of a mauve grey. The huge mill sends out its streamers of black smoke. Immediately to the right and far to the left is the ocean; unruffled, its colours melting into each other insensibly off the southern shore; deep blue with specks of white off the northern. And straight ahead, back of the cultivated fields, in a long, bare, upward sweep, rises the stupendous dome of

Haleakala, "the house built by the sun," 10,000 feet high, its summit floating blue and immeasurably calm above the little industries of men, above the encircling ring of clouds. It is the first sight of a really great Hawaiian mountain. From here to Wailuku the road leads through the cane fields across the level plain—a plain that seems like a broad highway leading between endless mountain masses from the southern to the northern ocean.

In a battle near Wailuku, which is now an attractive town of some 5,000 inhabitants, Kamehameha completed the conquest of Maui. It is said that the waters of the stream flowing from Iao Valley back of the town were dammed by corpses, and that this is the origin of the name Wailuku, "water of strife." The town is now the county seat. It is a pleasant place to stay in, principally because of its situation, with the rugged mountains of west Maui behind it and in front Haleakala looming up across the plain. In its way Iao Valley, reached by a drive of a few miles, is quite as fine as the Yosemite. Its perpendicular walls are as high and give the impression of being even higher, since the floor is narrower. Unlike most Hawaiian gulches, Iao, after the narrow entrance is passed, broadens into an amphitheatre, the sides of which are broken with great rock bastions, ridges that spring from the sides of the mountain. These

precipices are thickly wooded with trees and shrubs of every imaginable shade. At the head of the valley, to the right, the massive peak of Puu Kukui, 5,780 feet high, dominates all the lower spires and domes. Here, surrounded by inaccessible mountain walls, one gets again, as so often in the Islands, a sudden sense of complete isolation. It seems impossible that a few miles of macadam road lead back to civilisation. The only reality is the encircling precipices. Even to speak seems an intrusion on the silence of this predestined solitude, and the shriek of an automobile horn is an abomination. In Iao also the feeling of being on an island is gone. It is far more as though one had penetrated some beautiful and lonely mountain range in the middle of a continent. Indeed, the traveller who has been so far afield will find that it recalls insistently one of the beautiful valleys back of Kutais on the warm, southern slope of the Caucasus.

High on the ridge back of Puu Kukui, between the Waihee and Honokohau valleys—the former is as beautiful as Iao, but not so easy of access—is a very tiny but perfect crater, Eke, by name. It was originally, of course, at the top of a mountain, but the winds and rains of thousands of years have carried away most of its support, so that it hangs now in mid-air, suspended on its narrow ridge, a position probably

unique for a crater. So steep are the walls which support it, so tangled with tropical growth the lower ridges, that only one white man has ever succeeded in reaching its rim. And this is but a sample of the climbing in the west Maui mountains, with their tempting peaks, each with its glorious view—all baffling except to the most expert because of their matted vegetation and of the angle at which they shoot into the air. Nothing anywhere could surpass the outlook from the top of Puu Kukui, with superb gorges running on all sides to its base, with the mighty dome of Haleakala in the distance and all around the blue-black ocean.

The landing for Wailuku, about four miles to the east, is Kahului, a flourishing village that has, however, much of the raw newness of a Western mining town. It is the port of shipment for sugar from the Hawaiian Commercial and other plantations, and behind its breakwater the largest steamers can find safe anchorage. It is the necessary starting point for a trip to east Maui, and for the incomparably interesting excursion to the top of Haleakala, with its huge extinct crater. The ascent of the mountain, with the return trip, takes two days, not including the descent into the crater. The distance to the summit from Paia, the eastern terminus of the Kahului Railroad, is about twenty-two miles. The first seven miles, to

Makawao, a pretty village at an elevation of 1,500 feet, and the social centre of the district, is done by carriage or automobile. It is possible, at extra expense, to continue in the same way to Idlewilde, which, in spite of its name, is a delightful spot 4,500 feet above sea level. From here it is necessary to continue the ascent on horseback.* Warm clothing and overcoats are essential, as it is often very cold, and ladies, who are required to ride astride, should also be provided with short skirts and leggings, or divided skirts. At the summit is a newly built concrete rest house, provided with cot beds, blankets, etc., where the night may be spent in comparative comfort by those who are not affected by the altitude. Since no one lives here, all food and special comforts must be carried from below. On the regular excursions they are provided as a matter of course. The pleasant horseback ride from Idlewilde, across great upward-swinging plains, past herds of cattle that recognise men as men only when they are on horseback, and might possibly prove troublesome to the pedestrian, is interesting principally because one more and more realises the altitude. The cultivated fields below shrink, and at the same time the ocean spreads wider and wider and always

* The U. S. Govt. plans to build a motor road to the top of the Mountain which is now a National Park.

more definitely blue. Or, if it is night—and most people make the ascent by night, so that sunrise may not be too many long hours away—the land is an indistinguishable grey, and the ocean is jet black, and overhead the stars seem very many and very near. In the vast silence, so different in quality from the troubled silence of the lowlands, one can almost hear the crisp rustle of their sparkling. It is no wonder that so many Oriental monasteries are built high on the mountains of Asia Minor. Lofty solitudes seem always most open to celestial influences, and perhaps it was with the consciousness of the near presence of the gods that the Hawaiians named this mountain not Haleokala, “house of the sun,” but Haleakala, “house built by the sun,” thus making the sun god’s connection with it more intimate.

On a dark night the summit of the mountain is merely the end of rising ground—or more than that, the end of everything, since straight ahead yawns a pit, which is the crater. Nor by moonlight is it satisfactory, since the indistinct outlines only make one long to see more. In general it may be said that, except to the imagination of poets, mountains by moonlight, unless they are snow mountains and are very near, are disappointing. It is true that here on Haleakala the moon seems to hang lower and to be more silvery than anywhere else, but its brightness brings out clearly

only the hut and the rocks that are close at hand. The proper thing to do is to build a fire and to persuade the guide to tell stories of the mountain—stories, it may be, of quite modern experiences, of hunting and camping in the crater, or of the rescue of foolish strangers who try to find paths up the rocky walls and are marooned on treacherous landslides; or, perhaps, if the guide is Hawaiian, of some of the elder, legendary history, of the time when the fire goddess Pele broke through the wall of the crater at the great Koolau gap and fled from Maui forever, across the water to Hawaii. And then it is wise to try to sleep until the sunrise.

Dawn comes quickly in the tropics, and even more quickly on a mountain top. When the first faint light appears the party takes its position at the edge of the crater. The stars grow pale, as though they were strewing their own brightness over all the sky. Then the light reaches downward and is reflected from below, from the upper surfaces of cloudbanks that were invisible a moment before. They shine whiter and whiter, revealing black chasms that cut across them. And then, as there comes a hint of saffron in the sky, what seem three more lofty clouds to the southeast take on solidity with their morning colours and resolve themselves into the three dome-like mountains of Hawaii. The black rim of water at

the eastern edge of the world grows sharper as the green and red behind become more intense; the tips of the Hawaii mountains first gleam golden in the sunlight, and then suddenly the sun itself springs over the horizon, and all the colours of the cloud tops vanish in white daylight. But far below it is still night. The ocean, except to the east, is still black through the cloud rifts. The fields below are still dark, and the west Maui mountains are sombre. There is something unreal and very wonderful in standing thus in the golden light above the clouds, above the world asleep, alone with the beautiful snow-capped Hawaii mountains that surge high above the surf-like clouds across the channel. Then as the light glides down the mountain, picking out forests and fields and villages, and turning the black sea blue, as the horizon, that is the rim of a great bowl, pales, and fuses at last in the misty sky, one turns to look at the wonder near at hand, at the vast crater at one's feet.

The extinct crater of Haleakala is 20 miles in circumference, 7 1-2 miles long, and 2 1-3 miles wide. Where one stands, in front of the rest house, there is an almost perpendicular drop of 2,000 feet to the floor of the ancient volcano. The apparently tiny cones at the bottom are, in reality, good-sized hills, one of them 700 feet high. This crater is by far the largest in the world. Except

for the still active crater on Mauna Loa, Hawaii, Haleakala is the only intact summit crater in the Islands. In all other cases such craters were probably filled to the brim by the final volcanic activity, and subsequent erosion has completely done away with all semblance of the original form. On Maui, however, some great geological fault caused the sides of the mountain in two places to slip into the sea, leaving two huge gaps in the rim of the crater, through which the last lava flowed away, instead of piling itself up and up until it filled the bowl.

Most travellers will be satisfied with the view into the crater. For those who wish to descend, a trip necessitating a day and comfortably filling two days, there is a difficult trail of about three miles along the rim, which is continued, by an easy trail, into the crater. The floor is covered with lava sand and is practically bare of vegetation, except at the eastern end, where there is a low growth of trees. There are almost no signs of erosion, since it seldom rains at this altitude. Scattered throughout the crater are many silver swords (*Argyroxiphium*), a kind of plant found nowhere else. They are polished silver in colour, looking like rosettes of long, thin swords, growing three or four feet high and bearing panicles of flowers something like a yucca. The leaves last indefinitely. On the floor of the crater the evenly

formed cones are interesting, thirteen in all, seven of them sand hills. There is a so-called bottomless pit which is an ancient blowhole; a natural bridge across a fissure which marked one of the eruptions; there are many tiny craters; curious lava and crystalline formations. But above all there is the impressive magnitude of the whole—the stupendous walls, broken in places by landslides, the miles of rolling desert country that seem rather to be at the bottom of some great Sahara valley than to be the floor of a volcano. Haleakala must have been awe-inspiring almost to stupefaction when its cones were spouting fire and when rivers of scarlet, molten lava crawled along its floor. It is quite as superb in the desolation of its death.

From Paia, where one leaves the railroad to make the ascent of Haleakala, another most interesting excursion is to the eastward, along the north side of the Island, through a region which was almost impenetrable until the opening of a long irrigation ditch, along which a paved trail was built. There is a good automobile road practically completed which covers the forty-seven miles between Paia to Hana at the eastern end of Maui. This drive includes practically the same scenery as that along the ditch trail although in places at a slightly lower elevation. To one enjoying a really inspiring horseback ride the trail is recom-

mended but even the more sophisticated, who go by motor, will find the road, winding along cliffs and through cañons one of the great scenic trips of the world, far more beautiful, for example, than the famous Amalfi drive. After leaving Paia the road passes through the rich, rolling country of Haiku, thickly planted with pineapples. Beyond Huelo the ditch trail branches off through the wild jungle of this, the wettest part of the island. Road and trail wind in and out, largely paralleling each other, generally at an elevation of from 1000 to 2000 feet, following the contours of the rugged gulches which cut into the mountain from the sea. Often the road is actually blasted out of the sides of precipices where one looks down a sheer 1,000 feet to the valley bottoms, with the sea beyond. The Keanae Valley, inhabited only by Hawaiians and, until the trail was built, accessible only from the sea, leads up into the Koolau gap and into the crater of Haleakala. The ascent is gradual, leading through magnificent scenery and splendid, untouched native forests. On either side of the gap, at the entrance to the crater, the precipices tower ruggedly thousands of feet into the air, forming the stately gateway through which the Fire Goddess left her ancient home. A few miles beyond this valley the trail, still winding along the precipices and crossing the gulches at their nar-

row upper ends, always through the beautiful tropical growth, reaches Nahiku, the centre of what it was hoped would be the great Hawaiian rubber industry. From here around the eastern end of the Island the motor road, follows in part the line of a paved road built by the kings of Maui in the sixteenth century. The village of Hana at the eastern point is situated on a charming little bay protected by two headlands. That to the south, Kauiki Head, is an ancient crater and was a famous fort in olden times. When Kamehameha invaded Maui this stronghold withstood his attacks for two years, long after the rest of the Island had been subjugated. Beyond Hana the road extends south and west for a few miles only, and a rough trail leads around the southern slope of the mountain to Makena landing. The country here is protected from the trade winds, and the plains, little cut by streams and rising more steeply than on the northern slopes, are used only for grazing purposes. The ranchers have a trail which leads upwards through the abrupt Kaupo gap, the break in the southern wall of the mighty summit crater.

Makena, except for the queer little crescent-shaped island of Molokini, the remains of a tiny volcano five miles off shore, is a place of no interest, but the road connecting it with Makawao

and the northern slopes of east Maui, and with Kahului on the isthmus, leads through the beautiful district of Kula, across the great western shoulder of Haleakala. This Kula district, high, with only a moderate rainfall, but with very rich soil, is an excellent farming region and has a climate as nearly perfect as one could wish. People are beginning to build on these cool, beautiful uplands, where the air is pure and delicious, where there are no high winds, where flowers and vegetables and trees of every kind can be raised with almost no care, and where society, centering about the village of Makawao to the northward, is made up of intelligent, well-informed people. If there were only a hotel, as there must be sometime, the region would surpass all other parts of the Islands as a place for a summer holiday.

Maui, with its extremely rugged western end, and its dome-like eastern end, is an island with perhaps more diversity of scenery than any of the others. It is easily accessible. At Lahaina and Wailuku, the latter being the natural centre for excursions, there are good hotels. Iao Valley, with its cañon-like walls, its marvellous colours, and its lonely sublimity, would be worth the effort necessary to visit the Island if there were nothing else to see. The extinct crater of Haleakala, unique in its desolate, dead magnificence, and the

glorious view of the Hawaii mountains across the clouds as the sunlight touches them in the early morning, is a sight memorable to the most hardened and unemotional of men. It is one of those great, amazing experiences of life which can no more be described than they can be forgotten. Even the wonder of Kilauea is surpassed by the wonder of this mighty crater, in which Vesuvius would be only a deeper depression, barren, alone, and eternally silent in the high quiet spaces on the summit of its huge mountain. It dominates Maui, makes of it a land of inexpressible fascination.

Two small islands to the south are of little or no interest. Lanai, opposite Lahaina, with an area of 139 square miles, is a single cone 3,400 feet high. On it are springs, one running stream, and some low forest growth. The Island was recently purchased by The Hawaiian Pineapple Company and, except for a cattle and sheep ranch on the higher slopes will soon be covered with pines. Lack of sufficient water for ordinary cultivation has been overcome by the discovery that moisture in the soil can be retained by laying strips of specially prepared paper between the lines of plants. Kahoolawe, off Makena, covers 69 square miles and is surrounded by cliffs on the north and east. It is almost barren, supporting only goats, which have destroyed the vegetation. It formerly

supported a few native fishermen and herdsmen, but is now uninhabited. One likes to know the names of these little islands as the steamer passes them on its way to Hawaii.

CHAPTER XI

HAWAII

LARGER than all the other Islands together, the youngest geologically, Hawaii consists of three huge, gently rising mountains, connected by a high plateau. Except at the northern end, therefore, where the Kohala Range juts out from the mass of the Island, the scenery is of a very different character from that of the islands to the northwest, comparing in general outlines only to the vast eastern end of Maui. The Island, a little smaller than the State of Connecticut, and distinctly larger than Porto Rico, covers 4,015 square miles. As the three great mountains, Mauna Kea, Mauna Loa, and Hualalai, rise, respectively, 13,825 feet, 13,675 feet, and 8,269 feet, the climate ranges from sultry tropical heat near the shore (notably in the district of Puna) through all gradations of temperature to what is nearly perpetual snow. In winter the snow comes well down the two higher mountains; in summer it is permanent only in sheltered nooks near their summits. The Island has a population of 64,895, and settlements are numerous in all parts except in the southeast and on the upland plains.

There are two ways of reaching Hawaii from Honolulu—either by steamers of the Inter-Island Steamship Company to Hilo, or to the Kona and Kau ports on the lee side of the Island; or by the larger ships of the Matson Navigation Company, or the Los Angeles S. S. Co., which make a side trip to Hilo about three times a month. The Inter-Island boats which sail twice a week to Hilo and once a week to Kona and Kau, and are more likely to fit conveniently into the traveller's itinerary.

Steamers for Hilo usually touch first in Hawaii at Kawaihae, near the northern part of the west coast, a forlorn village, barren, windswept, so dusty that it is often unpleasant, because of the dust in the air, to stand on the deck toward the shore, even though the steamer lies a half-mile from the landing. But sometimes in the early morning or late afternoon the view of two of the great mountains is magnificent—Mauna Kea thrusting its snow-capped peak over the red plains, and nearer the barren mass of Hualalai scarred with black lava flows, its green base blotched with the darker shade of shrubbery and low trees. Mahukona, a few miles to the north, the landing for Kohala, is equally barren, and with its dingy warehouses looks even more dreary than do the red plains back of Kawaihae. A short railroad runs from this

landing to Kohala, but the steamers do not now stop long enough for passengers to make the trip. Except in the rare southwesterly or westerly storms, these landings are always smooth. The wind from the land seems sometimes to blow even the ripples from the surface of the sea. It is a short relief, however, as the steamer proceeds immediately around the north point of the Island and along the windward coast, where the water is usually boisterous. Here the scenery is very wonderful. Waipio Valley with its broad mouth and its precipitous sides, and the other valleys near it almost as impressive, is succeeded by cliffs reaching in a line, broken only by the gulches, for seventy-five miles. These cliffs rising directly from the sea are covered with verdure, and over them at short intervals tumble lovely waterfalls. Behind them is the pale green carpet of sugar cane stretching back to the forest belt, that in its turn gives place to the bare uplands which are dominated by the snowy crest of Mauna Kea. The cliffs give way only when the ship reaches Hilo Bay—Hilo, or the “new moon,” so called from the long crescent of the bay. New docks give berths for all steamers which makes the landing far pleasanter than when in the old days it had to be made in small boats, which were often tossed about in a rough sea.

Hilo, the chief city of Hawaii, is a town of

about 12,000 inhabitants. It is the distributing centre for the districts of Hilo and Puna. From here the sugar produced along the coast is sent direct to San Francisco and New York. Beautifully situated on its broad, smooth bay, with the two superb mountains of Mauna Loa and Mauna Kea as background, with a richness of tropical vegetation unknown in Honolulu, it deserves a longer visit than the two or three hours usually given to it. People who are jealous of Hilo say that it rains there eight days in the week and five weeks in the month, and indeed there are seldom many successive clear days. But as compensation there is little dust in Hilo, and the variety and luxuriance of foliage and flowers are a delight. The old dingy court-house, almost hidden in a grove of huge trees, is wonderfully picturesque. Private houses are almost invisible behind their crowded gardens. There is a charming park where band concerts are often held, but for recreation people go to Cocoanut Island in the bay. On its rocky shores the surf-bathing is wonderful, and one dives into the water and swims about under the cocoanut trees that seem to stretch out over the water to get breathing space, so crowded is the little island. A mile back from the town Rainbow Fall breaks from a mass of trees and ferns to fall eighty feet into a dark cave pool, from which it rushes, in foam and spray, between high, rocky walls that

are always draped with morning-glories. It is almost a miniature replica of the great fall at Tivoli. In the sunshine it seems literally garlanded with rainbows. Another drive, of six miles, northward along the coast, takes one through cane fields and clumps of gleaming vegetation in the valley bottoms to the Onomea Arch, a perfect natural archway under a cliff, against which the waves dash perpetually. Four miles back from Hilo, into the edges of the great forest belt, is the Kaumana Cave, a tube extending for miles under an old lava flow. The stalactites and stalagmites, the folds of rock that look like crumpled velvet, the tree roots pushing downward through the rock in their work of breaking up the solid lava, the brilliant colours where the water has filtered through, the streaks of iridescent enamel on the cave sides—all make it intensely interesting. In the town itself the Hilo Boarding School, where Hawaiian boys are given manual training, where experiments are made in the treatment of different native woods, is well worth an hour's visit. It is even more interesting as being the school on which General Armstrong modelled Hampton Institute in Virginia. These things are all accessible by automobile, all should be seen, and all cannot be seen if Hilo is considered merely as a stopping place on the road to the Volcano.

This is usually the case, since the tourist goes

normally to Hawaii only to see Kilauea. Now that a macadamised road has been constructed around the Island the man who has the time ought to make the circuit. It is as varied in scenery as is the short one-day trip around Oahu, but the variety is totally different—one might be in another part of the world. To the amateur geologist it is usually a new experience to be on an island that is in the making; to the botanist an endless field of exploration is open; to the student of agriculture there is opportunity to study the cultivation or possibilities for cultivation of most crops of the tropics and temperate zones; and for the mere sightseer there are snow-capped mountains, tangled tropical forests, deserts, ancient and recent lava flows, wild cañons, hundreds of waterfalls, serene upland pastures, quaint vestiges of primitive Hawaiian life. Hilo, where automobiles can most readily be hired, is the natural starting point for the excursion. Dust coats, rain coats, and heavy wraps should be provided, as one is likely to encounter all kinds of weather. The roadside inns are simple, but everywhere one can find clean, comfortable quarters, and decent food at moderate prices, and everywhere people are hospitable.

The start from Hilo, even if one is going direct to the Volcano, should be made before 3 o'clock. The distance is only a little over thirty miles, but

to hurry is to miss half the charm of the ride. The road immediately after leaving Hilo crosses the Waiakea River, here a lazy stream winding its slow way to the ocean between banks overgrown with bamboo and oleanders and bananas. The road then begins to wind upward through fields of cane, past a queer little forest of hala trees or screw pines, through cane fields again, of the Olaa Plantation, and so into the district of Puna, that, near the coast, is one of the warmest and wettest parts of the Islands. The forest has been cleared away to make room for cane, but vestiges of it still remain, a few splendid scattered trees that seem now like outposts of the great forest which raises its high blue walls beyond the plantation fields. If the day is clear the far distant summits of Mauna Kea and Mauna Loa appear and disappear behind the nearer hills. Nine miles from Hilo at the Olaa Mill a road turns to the southeast from the main highway and makes an interesting side trip through the Puna district. (A branch line of the Hilo Railroad taps the same region.) Of interesting sights on this branch road may be mentioned the warm spring at Kapoho, which makes a pool some 60 feet long, 30 feet wide, and 25 feet deep in a cleft of lava rock, and in which the clear, buoyant water is always at blood heat. In the forest near at hand are many interesting lava casts. The liquid lava years

ago piled up around the trunks of trees, hardened before the trees were burned away, and were left standing as gigantic vases in which now are growing ferns and shrubs and sometimes small trees. A long section of the Puna coast has evidently sunk, as there are dead stumps of cocoanut trees rising from the water. Along the coast in several places are strewn great boulders, which were thrown up by the tidal wave of 1868. Near Kapoho also is Green Lake, a lovely pond in a volcanic cone, where the limpid water is always emerald in colour. It is circled with forests of palms and shrubbery, among which used to be found in great abundance the exquisite pink begonia, which is indigenous to Hawaii, but which is unfortunately almost extinct. Not far away is the ancient heiau, or temple of Wahaula, one of the most important of Hawaiian temples. In the Bishop Museum in Honolulu is a miniature model of this temple as it would look were it completely restored. The only industry of the region of particular interest is the saw-mill, where huge ohia trees are cut into railroad ties to be sent to America. A peculiarity of the wood is that it is very hard, becoming with age so impenetrable that it is impossible even to drive a nail.

Starting again from the Olaa Mill the road to the Volcano House soon enters the forest, and rises in a gentle grade, sometimes for miles in a straight

line between the giant trees. At places the forest on either side is practically impenetrable, assuming the character of a real tropical jungle, but of course without snakes or wild animals. The trees are close together, and clinging to them are vines—water-lemon vines with their juicy yellow or purple fruit that is very good to eat, fantastic vines, with huge shining leaves or whorls of tough, hairy spines, vines interlaced from tree to tree, forming the closest of screens. Ferns of all kinds mat the ground, and springing from them, forcing themselves between underbrush and vines, the tree ferns reach their graceful fronds thirty feet into the air. Masses of Hawaiian raspberries with fruit as large as plums, but bitter in taste, and of thimble-berries, with their spicy scarlet fruit, tumble over the embankment on either side of the road. At intervals deep rectangles have been cut into the forest and planted with coffee or bananas or other fruits. Through the natural hedges in front of these clearings one catches glimpses of picturesque cottages overgrown with vines and reached from the road on paths made of the rough, springy trunks of tree ferns laid close together. There was once a rush to the Olaa region. Bits of forest were cleared with immense labour in order to plant coffee, but the climate has been found not to develop the best quality of berry, and so many of the cottages then built are now

used by residents of Hilo as summer houses or as week-end retreats. The railroad, which some people take in going to the Volcano, ends at the twenty-second mile, and its passengers are transferred to a motor omnibus for the rest of the trip. After about the twenty-fifth mile post the trees begin to dwarf a little; open spaces with only a low scrub growth like heather become more and more frequent. There are still occasional clumps of ancient koa trees with their crescent-shaped leaves and their mighty trunks, but the fan palms, of which there are many in the lower forests, have disappeared. In places the ground is covered with stag-horn fern, a coarse brake, stiff and impenetrable, which needs very little soil, and which is gradually covering geologically recent lava flows, and with its strong roots is breaking them up, thus accomplishing the first step in the progress of disintegration. There is rock everywhere, scattered stones, and bits of old flows protruding from the ground. The air becomes much cooler, as the road has ascended nearly 4,000 feet. Sometimes one gets a whiff of sulphur or sees a faint wisp of steam hanging over a clump of ferns, but there is no other indication of the nearness of an active volcano. Then the road turns sharply to the right and in a few minutes swings in through beds of brilliant flowers to the door of the Volcano House on the brink of the great crater of Kilauea.

The Volcano and the surrounding country, which are too important to be merely incidental to a trip around Hawaii, are described in the next chapter.

In continuing the circuit of the Island, the road leads around the western, highest wall of the crater, at first straight toward the stupendous dome of Mauna Loa, its broad, rounded summit seemingly a short three or four miles away in the clear morning air, whereas it is in reality twenty-five miles as the bird flies. The round trip, however, may be made in three days on a good and very interesting trail which passes through splendid forests and crosses some of the country where volcanic activity has been most recent. There is a rest house at 10,000 feet elevation. Turning almost immediately to the southward, the road enters a barren stretch of country called the Kau Desert. It is made up of lava flows, one on top of another, some very recent, and what little soil there is, is probably poisoned by the clouds of sulphurous smoke blown across it from the Volcano. This desert reaches to the sea, since many of the flows, notably that of 1868, broke out only twelve miles from shore and fell over the low cliffs into the water. Like all deserts, this of Kau has its fascination, but it is quite different from others, since its predominating colours are black and grey and

blue, unlike the sage green and brown of Arizona or the gold and pink of North Africa. Beyond the desert the road passes through a rich grazing country, and then once more through sugar plantations where the cane is carried to the mill in flumes, sufficient water being obtained by driving shafts high on the mountain side. This region has not the great forests of the windward slopes as a background. Instead there is always the impressive upward swing of the bare land, green and brown except where distant lava flows look like sharp black shadows streaking the higher reaches of Mauna Loa. One is usually impressed in the Islands with the smallness of it all, with the nearness of the encompassing ocean. In Kau there is none of this feeling. The majesty of the great mountain meets and equalises the majesty of the sea, which here takes its place as a beautiful frame, without encroaching on the picture itself. After passing Pahala, one of the largest and best plantations in the district, and the one which plants cane at higher levels than any other, the road drops down to the shore at Honuapo, a picturesque village which is the landing place for those who choose to reach the Volcano from the leeward side of the Island, going to the Volcano House by motor and then by continuing to Hilo not retracing their steps. Honuapo is the principal seaport of the district of Kau, which district, in

spite of its lack of valleys and therefore of running streams, and in spite of its immense lava-covered areas, still supports two flourishing plantations and is an excellent grazing country. In olden times it had a large native population living principally near the shore, who, by tapping underground rivers, obtained abundance of good water. The district is rich in Hawaiian folk-lore.

Turning due west from Honuapo, thus avoiding the long south point of the Island, the road makes a long four-mile ascent to Waiohinu, which appears suddenly, a village surrounded with splendid trees and overgrown with rich vegetation—a startling contrast after the endless, dry reaches of Kau. This village is the seat of government for the district, and besides two churches, a court house, and jail, has a thoroughly comfortable inn. Through the village runs the only stream in a stretch of 150 miles along the coast. Still proceeding westward, the road climbs in long curves and loops to an altitude of about 2,000 feet and then crosses another twenty miles of wild and desolate country, devastated by four recent eruptions from Mauna Loa. In the short intervals between the flows a sparse forest growth has held its own, and everywhere growing in the crannies of the lava are ferns, wild flowers, and morning-glories.

The district of Kona is reached before passing out of this region of lava flows, the last of which

to the westward is the glistening new flow of 1907. On reaching Kona one cannot help feeling a change in the atmosphere that seems to produce a change in the whole aspect of the country. It is commonly said that the trade winds make the climate of the Islands, yet in Kona the trade winds do not blow, and there the climate is perhaps pleasanter than anywhere else. The coastline runs north and south, but to the east the mass of Mauna Loa and to the north the dome of Hualalai cut off the passage of the winds. Instead of the trades, therefore, a gentle west wind blows in all day from the sea, piling its moisture in a bank of clouds against the high lands to the east. As this bank spreads seaward, preceding the sun, there are often showers in the late afternoon or night. Always toward sundown the sea breeze dies away, and in its place springs up a breeze from the mountain, cold and refreshing, which blows all night. With such a climate Kona might be called almost abnormally healthful, and there is an old Hawaiian saying that "in the district people never die; they dry up and blow away."

Kona, the soil of which is made up entirely of decomposed lava flows, is very hilly, but without gulches or streams. On account of its regular rainfall, it is one of the richest and most productive in Hawaii. Near the shore there is a narrow strip of very dry land, bordered by an abrupt

slope, above which are the upland plains, cool, bracing, and plentifully watered. Along these uplands, two miles or more from the shore, runs the main road, with branches down to the landings. Everything grows here, even though the land appears in places to be only a mass of loose rock. Agriculturally the difficulty lies in expense of transportation and distance from a market, which makes the raising of perishable crops unprofitable. The chief industry is the raising of coffee, the best in the Island coming from Kona, and the fields of neat little trees, dressed in their dark, shining green leaves, or in a mantle of snow-white blossoms, or studded with carmine berries, are always wonderfully attractive. There are fields, too, of pine-apples, of sisal on the dry coast. Vanilla twines around the trunks of trees. Tobacco has lately been planted, and the flourishing plantations, which produce a very superior quality of leaf, give every promise of success. A rocky country it is, but radiant with a very varied vegetation; beautiful with the great, misty slopes of Mauna Loa to the east, and of Hualalai, not so high, but appearing so because it is steeper, to the north.

Kona abounds also in places of interest. At Honaunau are the remains of an ancient city of refuge occupying the six or seven acres of a low lava point on the south side of the bay. The walls, of which those on the south and east have been re-

stored, are about twelve feet high and eighteen feet thick. One temple stood on a platform of rock facing the bay, and below it was another and larger temple, parts of which, including two sacrificial altar stones, still remain. This is one of the most famous of the Hawaiian ruins. It is comparatively well preserved, and is impressive in its surroundings as well as for its size and history. Many thousands would hardly equal the number of those who must have been saved from death by its protecting walls in the centuries that have gone. A few miles further up the coast is Napoopoo, where Captain Cook landed and traded with the natives, and across the bay is Kaawaloa, where he was killed. Here, among the cocoanut trees near the shore, where it can be seen from passing vessels, has been put up a plain shaft of concrete bearing the following inscription: "In Memory of the Great Circumnavigator Captain James Cook, R. N., who discovered these islands on the 18th of January, A. D. 1778, and fell near this spot on the 14th of February, A. D. 1779. This monument was erected in November, A. D. 1874, by some of his fellow countrymen." A few miles north of here on the beach road is the famous battle-field of Kekuaokalani, where, after the ancient religion was abolished, certain rebels under a chieftain fought to restore the gods. They were decisively beaten by Kamehameha II, with whom were the

high priest of the old religion and many of the more enlightened chiefs. The drive of eighteen miles along the main road from Napoopoo northward to Kailua has the reputation of being one of the finest in the Territory. One rapidly approaches Hualalai, and Mauna Loa, as it recedes, seems to loom up higher than ever. The road is well above the sea, so that the horizon is distant, the boundary of a great mirror of placid blue water. At Keauhou, a little more than halfway, there is a splendidly preserved stone slide down a steep hillside—the best relic remaining of the popular ancient Hawaiian sport of coasting. Extending all through the district is an old stone wall, built by enforced labour on command of the chiefs to exclude animals from the agricultural lands on the higher levels. Kailua itself, the chief landing for north Kona, is a village on the seashore. Its most striking feature is a large stone church built in 1835, when the surrounding country was thickly populated. Here also is a square, plain, wooden building surrounded with broad verandas—the old palace of the kings. Kailua is hot but attractive with its cocoanuts and groves of other trees, and if a steamer happens to be off port it is always interesting to watch cattle being embarked. They are tied by their horns to the outer sides of a rowboat and so half-dragged, half-swimming, are carried out to the ship, where they are hoisted

to the decks with pulleys. It is a method which might well appear primitive to those accustomed to the operations of the Chicago Stock Yards. Near Kailua, and indeed all through this region, one sees the quaint old grass houses, relics of a hundred years ago, that are even now occasionally built in the old style.

From Kailua the road skirts the west slope of Hualalai. The mountain rises gently at first, but ends in a steep incline, which makes the ascent difficult. There are small craters at the top, but no volcanic activity has occurred since 1801, when a lava flow broke out on the lower slopes a few miles north of Kailua. Kamehameha threw a lock of his hair into the lava to appease the wrath of Pele. On the sides of the mountain are several yawning pits, the vents of ancient lava streams. Except on the north side, which is nearly bare, the slopes are thinly wooded, among the trees being clumps of the cheromoya, or custard apple, a delicious tropical fruit with a rich and yet very delicate flavour. It is unknown in commerce because it does not keep. Through an excellent ranching country and groves of indigenous Hawaiian trees the road winds its way, turning eastward about ten miles from Kailua and then, after twelve miles, striking across country toward Waimea in the district of Kohala. On the northerly slope of Hualalai the road crosses a lava

flow so old that there is no tradition of its bursting out, and yet it looks as fresh, the folds of lava as polished, as though it had hardly cooled. In many respects it is the most interesting of all Hawaiian flows, presenting impressive evidences of tremendous force and power. A few miles north of Hualalai, where the road again strikes the vast slopes of Mauna Loa, here fifty miles or more distant from the summit, the great flow of the eruption of 1859 is crossed. This flow broke out near the mountain top, and for months pressed on steadily toward the sea, destroyed finally the fishing village of Kiholo, filled completely the greatest and most celebrated of Hawaiian fish ponds, and before it ceased pushed out into the sea a rocky point of several hundred acres.

Waimea lies 3,000 feet above sea level on the plateau between Mauna Kea and the Kohala Mountains. It is eleven miles from the seaport of Kawaihae to the west, and seventeen miles from the Honokaa Landing directly east in the district of Hamakua. Mails and passengers for this district are usually landed on the west coast and carried overland, since on the Hamakua coast there are no harbours and the landings, disagreeable enough at any time, are impossible in rough weather. The side trip from Waimea to the desolate west coast is hardly worth taking, as the road descends through grazing lands similar to those in the direc-

tion of Kona, and there are neither lava flows nor forests to relieve the monotony. The only thing of interest at Kawaihae is a heiau, or temple, built by Kamehameha in 1791. This was one of the largest of the heiaus, and is far less ruined than are most. With Waimea as a centre the side trip to the north, on the contrary, is well worth the extra day or two which must be devoted to it.

The town of Kohala is the centre of population for the district and is the seat of the district court. It is prettily situated, and has an unusually large percentage of white people as well as a large Chinese population. Near here Kamehameha was born, and here he spent the last years of his life, so the original of his statue in Honolulu stands appropriately in the town. There is here an excellent girls' industrial school, similar in its purpose to the boys' school in Hilo. Kohala is also at the centre of an extensive and long-established sugar district. The plantations formerly depended on rain for irrigation, but have now been made independent of the rainfall by a great ditch which carries water from twenty-five miles back in the mountains. Like the great ditches on Kauai and Maui, it was a difficult engineering feat, since the water had to be brought for three-fifths of the way through tunnels. The horseback ride along the line of this ditch takes one through some of the most magnificent scenery in the Islands. The

Kohala Range is the oldest part of Hawaii, older indeed than parts of the northwestern islands, and as a result erosion has cut it into rugged and precipitous forms. It is through this chaos of mountains, which rise to a height of 5,489 feet, that the Kohala ditch runs, beginning in a reservoir east of the mountains near the head of the superb Waipio and Waimanu Valleys. These tremendous gulches, and the sheer sea cliffs many hundred feet high which separate them, seem possibly to be the result of another fault by which a part of the coast slid into the sea. Certainly to look down into them from above one can scarcely believe that erosion since the world began could have made such clean-cut precipices nor carved out such mighty gorges. Waipio runs back from the sea four miles, and then turns at right angles westward, ending back of Waimanu. Almost at the turn and near the village of Waipio there used to be a waterfall 1,700 feet high, but this can be seen now only in very rainy weather, since its water has been flumed away to carry cane to the mills. Ulu Falls, practically inaccessible at the very head of the Valley, is 3,000 feet high. Waimanu Valley is not as deep as its neighbour, nor as precipitous, but is far more beautiful in shape and in colouring. The trip along the Kohala ditch, a good day on horseback from the town, not only leads through the grandest of

mountain scenery, but allows one to look down into these two extraordinary valleys. Between the end of this trail and the road from Waimea to Hilo the country is inaccessible, so one taking the trip must return to Kohala, but even though it means an extra day it should not be missed by any one with an appreciation of stupendous scenery.

From Waimea, with its bracing air, its marvelous views of the Kohala Mountains on one side and of snow-capped Mauna Kea on the other, the road to Hilo runs directly eastward to the coast. The fork to the northwest, which is a better road, adds a few miles to the distance, but permits one to look into the huge mouth of Waipio Valley before joining the main road again at Honokaa.

From this village with its plantation and its wild landing the road turns southeastward along the Hamakua coast. This district, except for the Waipio region in the north, has no springs or running streams, owing to the abrupt slope of the land. Ditches recently built have greatly improved the plantations, as they have enabled them to flume their cane and to irrigate during the very rare times of drought. Some plantations have built railroads to transport cane to the mills; one has instituted a complete overhead cable system. The mills themselves are always on the bluff over the ocean, where each has its own landing. Sugar, freight, and passengers are lowered

in baskets by cables into rowboats waiting at the foot of the cliffs. Such an embarkation, with the basket swinging in the wind, and the inevitable curiosity as to whether one will finally reach the boat or the water, is an experience which taxes the nerves in any weather, and which in rough weather is really dangerous. Hamakua, next to Kona, is the principal coffee district of the Island, and there are thriving plantations a little distance up the slope of Mauna Kea along the edge of the forest. The villages are divided between the mills at the edge of the bluffs and the road about a mile inland. The gulches to cross are unimportant and not particularly interesting, but the gradually shifting view as one circles the mountain, the freshness of the green cane, here always washed clean with the frequent showers, the fields of coffee, neat and polished looking, even in the distance, the dark edge of the advancing and retreating forest, the bold outlines of the sea cliffs, even the six sugar mills that are passed, make this part of the trip constantly interesting.

On entering the district of Hilo at Ookala, thirty-two miles from the town of Hilo, one has reached a land of deep gulches, each with its precipitous sides masked under a wild tangle of trees and shrubs and vines. The road winds in and out, up and down, crosses stream after stream. In the gulches one has, through groves of cocoa-

nuts, entrancing glimpses of the tumbling water, with the surf gleaming white near the shore. Near the streams the air is often heavy with the violent perfume of lovely white or yellow ginger flowers. High overhead swing the slender cane flumes that carry the sugar cane to the mills on the shore. On the ridges that separate the gulches the dark blue horizon line curves out in a great half-circle against the paler sky, and on the land side Mauna Kea thrusts its snowy crest above the dark forests and the ring of clouds above them. Across its eastern shoulder, far beyond, the mighty summit of Mauna Loa looks like the back of some leviathan, its monstrous body hidden behind the forests and the low-lying mists. The whole coast, with its rugged promontories, its bits of pale green cane, its plantation houses in their groves of trees, its precipices garlanded with sky-blue morning-glories or golden nasturtiums, its coconuts and bananas, with always the restlessly surging ocean on one side and on the other the serene mountains, is a marvellous panorama, changing with every turn, changing as the sunlight flashes and as sudden showers veil the distant points.

The towns are unimportant. Laupahoe stands on a leaf-shaped tongue of rock that juts into the sea—"lava leaf" is the English of the name. Surf always pounds on the shore, and during a storm the roar of waters dominates all

other sounds. The landing is from small boats in a little cove which fortunately is smooth, even though the sea outside may be very rough. If it were not for the great dexterity of the Hawaiian boatmen, who handle passengers as though they were bags of sugar, embarking and disembarking from rolling steamers into dancing row-boats would be quite impossible.* At Honomu an excellent Japanese school with a boarding department has induced many Japanese to settle on the adjacent lands. Back in the gulch and easily reached is the Akaka Fall, 500 feet high, one of the prettiest in the Islands, that tumbles over the edge of jet-black rocks and into a basin back of which is a deep, dark cave. At either side the precipices are covered with maiden-hair and other small ferns, and around the basin high trees accentuate the altitude of the Fall. The natural arch at Onomea marks the approach to Hilo and the view of the beautiful crescent-shaped bay with the tree-embowered town behind is a lovely ending to an excursion which can nowhere be surpassed in its infinite variety of glorious natural scenery.

No directions can be given as to stopping-places along the route, because the distance covered each day must depend on the weather and on the inclination of the traveller. There are comfortable inns at the Volcano, at Waiohinu, at Kealakekua Bay, at Kailua, at Waimea, at

*These landings are now little used as the railroad has made them unnecessary.

Kohala, at Honokaa, and at Laupahoehoe. Granted good weather the tourist travelling by automobile might plan to make his first stop at the Volcano House, 31 miles, or with the side trip into Puna, 77 miles; his next at Waiohinu, 42 miles; his next at Kealahakua, 42 miles; his next at Waimea, 35 miles (the road is in parts not very good); the side trip to Kohala and back to Waimea is 56 miles, and the night might well be spent in Kohala, proceeding next to Honokaa, 44 miles; the last day to Hilo, 50 miles. It would be possible to make the circuit of the Island by automobile in two days, omitting all the side trips, but for full enjoyment of the scenery and to visit the various points of interest, a week is none too much. Accommodations are everywhere simple, but everywhere clean and comfortable, and a breakdown is nowhere serious, since even in villages where there are no inns the people are hospitable and are always glad to take in strangers.

For those able and willing to take long, rough horseback trips there are at least three excursions which are well worth while. First is the ascent of Mauna Loa. There are two old trails, one from Pahala, Kau, on the south side of the mountain, and one from Napoopoo, Kona, on the west side, but although these are both interesting excursions, the best and easiest way to go is certainly by the new trail, starting from the Volcano

House. This is a trip of about sixty miles. The first twenty miles take one through some of the most interesting forests in the Islands, woods that contain some of the really old koa trees that are ten to twelve feet in diameter; the last ten miles are over rough lava flows, through a country that is superb in the desolation of its high, wind-swept places. At an altitude of nearly 14,000 feet it must be remembered that the nights are always, and the days sometimes, very cold. The sight of the great crater of Mokuaweweoe, at the summit of the mountain, is a fit reward, however, for any hardship.

The ascent of Mauna Kea, an excursion less often taken, is, perhaps, the finest in the Islands with the exception of the trip to the top of Haleakala. Although there has been no recent activity from Mauna Kea, the visible evidences of violent eruption, the yawning caverns, and the wildly fantastic lava flows are as spectacular in their way as are the fire fountains in Kilauea. The best point of departure is from the Parkers' sheep ranch, which is situated thirty-five or forty miles from Waimea on the great upland plateau between the three mountains. Mauna Kea, which is the highest island mountain in the world, has a summit platform five miles long and two wide, and it is the huge cinder cones on this platform, which from below look like peaks, which make this mountain

higher than its greater neighbor. On this platform, 12,000 feet above sea level, is an ancient quarry, where the natives in olden times made their stone adzes and weapons. There is also a small lake fed from the melting snows. From the Parkers' ranch it is possible to go to the top and back in one long day, and through the courtesy of the Parkers two nights may be spent at the ranch. The ascent may also be made from Mana on the northwest side, from Keanakolu on the north, or from Hilo on the east, where arrangements for the trip are made. Any one of these routes leads through the native forests, here quite untouched, as well as over the rocky region above the forest line, but any one takes more time than the first.

Another most interesting and almost unknown horseback trip is that from Kalaieha to Kilauea. This trail leads through magnificent and quite unexplored forests and across lava flows most fantastic in their formations. It takes one through some of the most beautiful country on Hawaii, through regions that are practically unknown, and where one can see the virgin tropical forests as wild and tangled as they were before the discovery of the Islands.

These three trips, although perfectly practicable for good riders, are seldom taken by tourists, who think that when they have seen Kilauea,

certainly when they have made the circuit of the Island, they have seen all that there is to be seen. Only by going off the beaten track, however, can one get a true impression of the country; only in this way an idea of the natural scenery unaffected by civilisation—scenery which happens to be of supreme natural beauty. Only by taking such trips as these, moreover, can the tourist realise that Hawaii is fully in the tropics, a land of superabundant, huge-leaved, multi-coloured growth. Tourists who wish to see these things should remember that notice of at least two or three days should be given so that arrangements can be made.

Even if it had no volcanoes, Hawaii, with its magnificent mountains and its endless variety of climate and scenery, would well repay a visit of several days. It is, however, the volcanoes, and especially the great active volcano of Kilauea, which make the crossing to the Island imperative and which would make worth while a journey half-way around the world.

CHAPTER XII

THE VOLCANOES

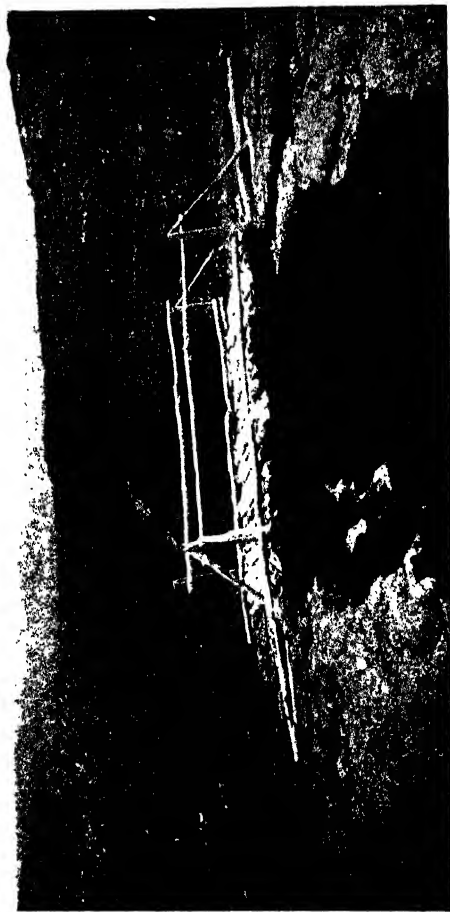
ACCORDING to all the rules of school geographies a volcano ought to be situated on top of a mountain; it ought to throw out stones, and ashes, and molten lava; its crater should be in the shape of an inverted cone and should emit terrifying noises; periodically it should overwhelm a village or two. Kilauea conforms to none of these specifications. Although it probably started out to make a mountain of its own, it is actually 4,000 feet above sea level on the southeastern slope of Mauna Loa. It retains its lava within its own crater, which is not shaped like an inverted cone, but is a sink in the middle of a flat plain some five miles across. The walls are vertical, not inclined, and the floor, except that it rises toward the southern part, is horizontal. The sides are from 100 to 700 feet high and 7.85 miles in circumference, and the floor covers 2,650 acres. The volcano seldom makes terrifying noises—at least, of the kind heard in imagination by a schoolboy. It is true that in 1790 there was a great eruption of the explosive variety when stones and ashes were thrown out in such quantities as to annihilate an army marching against the great Kamehameha—sure proof that the God-

dess Pélé fought on the side of the conqueror. From that time until a few years ago Kilauea was thoroughly well behaved. Then there was a tremendous activity in the crater, a magnificent display of fire which drew hundreds of visitors from all over the Islands. But this time the fires did not subside in the usual wellbred fashion of the volcano. Activity became more and more explosive, there were thunderings and reverberations, earthquakes, a pall of smoke which turned day into night, a rain of ashes, gravel and small stones which made the surrounding country dangerous. The sight-seers ran for safety. The Army established a cordon around the danger zone. Then, without doing much material damage the activity subsided, the lake of fire in the inner crater drained away and for the last two or three years no actual fire has been seen. Pessimists say that this eruption was the dying gasp of Pélé but the volcanologists believe that within a few years Kilauea will again be mildly active and safely spectacular.

The Volcano House stands on the northern bank of the crater, with a wonderful view across it, in clear weather, to the sea; of the great snowy mass of Mauna Loa to the west, and of the peak of Mauna Kea above the forests away to the northward. Back of it are beautiful koa forests, and some of the best masses of tree ferns to be

found anywhere. The only caution to be observed in the vicinity of the crater is to walk always where the ground is visible, never to take short cuts through clumps of ferns, since the country is intersected with cracks, and the warm steam issuing from them and keeping the ground moist, usually induces heavy growth. Some of these steam-cracks are large enough to fall into, and as they are very hot a few feet down such a fall might be a serious matter. Animals have been killed in this way. Just toward the mountain from the Volcano House steam issues from banks of red earth through myriads of tiny holes, and has encrusted the banks with sulphur, brilliant yellow and white against the red, in places formed into the most delicate crystals. The separate little orifices are too hot to touch with the bare hand, but the banks are safe to walk over. Steam is brought from them in wooden pipes to a bath-house, where one can take the most refreshing of natural Turkish baths.

The main interest naturally centres in the trip to the crater. The old approach, still advisable for good walkers, is by a path down the side, which is here broken and wooded, directly in front of the hotel. During the descent one passes under low growing lehna trees, and by many sturdy little yellow-green leaved sandalwood trees that have made their slow growth since the time



Bridge Over Crack on Floor of Crater

of the mad exportation of sandalwood in the early nineteenth century. The walk across the floor of the crater, about two and one-half miles, is over a hard lava bed, more or less up and down, since lava hardens quickly and remains as it flowed, in great ropes and ripples. A few yards from shore—one comes naturally to call the bank “shore”—a ragged crack is crossed by a wooden bridge. At the time this crack opened a large party was in the crater. They stayed long because they were delighted with the unusual activity of the lake and had no idea that this activity extended beyond the pit of fire until at last they started to go back to the hotel. It was night, and as they approached the northern bank of the crater their lanterns suddenly revealed a huge fissure directly across their path. Already molten lava was bubbling up at the bottom. They followed the edge of the crack, keenly conscious, undoubtedly, as they turned to keep parallel with the crater wall, that they were on the inner edge. At last they found a spot where the lava had split unevenly, leaving a projecting ledge on which it was possible to stand and so to jump to the other side. The whole experience, with the thought of sinking to the fires beneath, or of being overwhelmed by the lava slowly rising in the fissure, and the utter helplessness of their situation, was enough to test the most fearless.

As the trail winds across the uneven lava one is tempted again and again to turn aside to explore some curious cone or unusual formations, but always even more tempting is the sharp black line ahead that cuts across the lazy clouds of yellow smoke. Even the afternoon colours on the mountain, the wonder of the whole great, strange crater, fail to divert attention from that black rim. Curiosity as to what is back of it, below it, overcomes all other feelings. One reaches it suddenly. It is a rim, as it looked, the rim of a profounder pit, a crater within the crater. The cavity is 1,200 by 1,000 feet across, and its precipitous sides lead down, when the volcano is active, to a lake of molten lava several acres in extent, sometimes higher, sometimes lower in the pit. This is Halemaumau, which is commonly translated the "house of everlasting fire," but which undoubtedly means the "home of the Maumau fern," this fern having a leaf which the twisted and curled lava strongly suggests. But whatever its name, Halemaumau is certainly the centre of volcanic activity, the house of the goddess Pélé.

By daylight the lake of fire is a greenish yellow, cut with ragged cracks of red that look like pale streaks of stationary lightning across its surface. It is restless, breathing rapidly, bubbling up at one point and sinking down in an-

other; throwing up sudden fountains of scarlet molten lava that play a few minutes and subside, leaving shimmering mounds which gradually settle to the level surface of the lake, turning brown and yellow as they sink. But as the daylight fades the fires of the pit shine more brightly. Mauna Loa, behind, becomes a pale, grey-blue, insubstantial dome, and overhead stars begin to appear. As darkness comes the colours on the lake grow so intense that they almost hurt. The fire is not only red; it is blue and purple and orange and green. Blue flames shimmer and dart about the edges of the pit, back and forth across the surface of the restless mass. Sudden fountains paint blood-red the great plume of sulphur smoke that rises constantly, to drift away across the poisoned desert of Kau. Sometimes the spurts of lava are so violent, so exaggerated by the night, that one draws back terrified lest some atom of their molten substance should spatter over the edge of the precipice. Sometimes the whole lake is in motion. Waves of fire toss and battle with each other and dash in clouds of bright vermilion spray against the black sides of the pit. Sometimes one of these sides falls in with a roar that echoes back and forth, and mighty rocks are swallowed in the liquid mass of fire that closes over them in a whirlpool, like

water over a sinking ship. Again everything is quiet, a thick scum forms over the surface of the lake, dead, like the scum on the surface of a lonely forest pool. Then it shivers. Flashes of fire dart from side to side. The centre bursts open and a huge fountain of lava twenty feet thick and fifty high streams into the air and plays for several minutes, waves of blinding fire flowing out from it, dashing against the sides until the black rocks are starred all over with bits of scarlet. To the spectator there is, through it all, no sense of fear. So intense, so tremendous is the spectacle that silly little human feelings find no place. All sensations are submerged in a sense of awe. Nor is there ever a suggestion of weariness when sense of time is lost. The guide's quiet warning that the hour approaches midnight is an unwelcome shock, but without protest, with only unexpressed regret the party turns away a few steps to the eastward, where motors—strange anomaly among these primeval forces—are waiting at the end of the new road that leads up the low southeastern bank of the crater and so back to the Volcano House. This vision of the earth-building forces at work is a picture so overpowering that it is burned into the memory for all time, can always be recalled in every detail as though one were standing on the brink of Halemaumau.

Not always has Kilauea been what it is now, an enormous, quiescent crater with an active inner pit. It has changed in character with the decades, sometimes with the seasons. Its own mountain has been submerged in the course of centuries by the masses of lava which have been piled against its western slopes by volcanic action from Mauna Loa. The vent through which its fires are forced is far below the surface of the sea. Around this vent have been built layer after layer of solid lava, each layer the result of a new eruption, but as the crater above the vent has been pushed higher and higher, the weight of the molten column has become proportionately greater and it has more and more tended to find the weak places in the surrounding walls and so to force an outlet lower down, sometimes many miles distant from the crater. This accounts for the innumerable lava flows which may be seen everywhere on the sides of Mauna Loa, and in this way, for centuries, Kilauea has built its mountain, spreading in bulk below and not overflowing at the top. How long this process will last, when the weak spots in the walls will have been made solid by new flows, thus forcing an overflow from the crater itself, is a problem to which there is no answer. The only violent eruption actually from the crater, of which there is authentic record or even legend, is that which

destroyed an army south of the crater in 1790, and this came after the Volcano had been, apparently, completely inactive for a long period of years, the natural vent being temporarily sealed and therefore breaking out finally in an eruption similar in kind and as unexpected as the eruption of Vesuvius which destroyed Pompeii. Stones scattered all over the surrounding country, especially to the south, still bear witness to the violence of the outburst. Nothing so violent has since occurred and the outburst of 1924 did little or no real damage. It is not likely to occur again as it is probable that the lava, drained away at the time of the last eruption, will gradually refill the tunnels underground and again bubble up into the pit of Halemaumau. At present there is no visible fire but the pit is nevertheless a wonderful spectacle, almost endlessly deep, filled at times with swirling masses of gray and yellow smoke and steam, stirring for the imagination as the one outlet for the eternal fires somewhere far beneath.

The first white man to write of Kilauea was Mr. Ellis, who visited the crater in 1823, and what he saw was very different from what one sees to-day. Evidently the whole floor of the crater was active, and Mr. Ellis described it as follows: "The southwest and northern part of the crater were one vast flood of liquid fire,

in a state of terrific ebullition. . . . Fifty-one craters of varied form and size rose like so many conical islands from the surface of the burning lake. Twenty-two constantly emitted columns of grey smoke or pyramids of brilliant flame, and many of them at the same time vomited from their ignited mouths streams of fluid lava, which rolled in blazing torrents down their black, indented sides, into the boiling mass." * Since that time changes have been rapid. In 1832 the floor fell, making the crater about 2,000 feet deep. In 1840 the whole crater was again in a state of violent action until the lava found its way through unknown channels underground, broke out eleven miles from the coast, and flowed into the sea, thus draining away the molten mass in Kilauea. In 1848 a lava dome was formed over the lake of fire, confined then within what seems its normal area—a dome so high that it overtopped the walls of the crater. In 1868 all signs of activity disappeared, leaving only a great, fuming cavity, but three years later the fire lake was again full. In 1880 the whole floor of the crater rose in a fairly regular dome, which was surmounted by three lakes of fire, each about 1,000 feet in diameter. In 1886 all fire had again disappeared, but soon returned, forming other lakes and débris

*Ellis; "Tour of Hawaii."

cones which were higher than the outer walls of the crater.* There came a time, between 1900 and 1907, when the activity was very slight, and when people wondered whether Pele had died with the Monarchy, but until the final eruption Kilauea has been continuously active. There is now only the stupendous vent pouring out the fumes generated in the bowels of the earth, pouring in the form of sulphur smoke through the small end of a mighty funnel to stain the blue tropical air for a moment and disappear. What changes future years will bring is one of the mysteries which make the Volcano so fascinating. Certainly the visitors' register at the Volcano House, which contains detailed accounts, often with drawings, of occurrences seen by tourists and by scientists for many years back, will record as extraordinary events in the years to come. In 1916 the fire temporarily disappeared and people said the fire was dead. It came back then and will again.

An observation station, under the auspices of the Massachusetts Institute of Technology, has recently been established at the edge of Halemau-

* In 1885 I first saw the Volcano. The long horseback trip—there was no road—was a weary ride for a very small boy, but the amazing impression made by the several active lakes of molten lava remains as vivid to-day as it was then. I remember that my hat fell into a cone, and I saw it turned instantly into the ashen semblance of a hat. I wondered whether it would still be there when I went to the Volcano three or four years later.



Scene at Onomea on East Coast of Hawaii

mau. Dr. T. A. Jagger, in charge of the station, sends most interesting weekly bulletins while he is at the Volcano to the *Hawaiian Commercial Advertiser* in Honolulu, and the series of these bulletins forms a valuable and practically unique scientific record of volcanic phenomena. The temperature of the lava has been found by experiment to be about $1,750^{\circ}$ Fahrenheit. The daily, almost hourly, observations have finally proved much that was formerly only suspected about conditions and periods of activity. The floating islands in the fire lake were studied, and it was found that they greatly affected the lava fountains. Even the most regular of these—called, of course, “Old Faithful”—became very uncertain in its action when an island moved into its vicinity, probably because the solid mass appreciably cooled and therefore thickened the fluid lava. All sorts of instruments are used in recording the various phases of action, and cameras fix any unusual visible manifestations. The reports published by the scientists in charge have been illuminating and the observatory has already become of high scientific importance.

The new road into the crater, which follows the eastern bank and descends a long spur to within a hundred yards or so of Halemaumau, is familiarly called “the Road to Hell.” Certainly the lake of molten lava fulfilled as nearly as pos-

sible. all standard descriptions of that tragic place. One is tempted to believe that Dante and Milton and the rest must have seen this or some similar volcano to make their details so realistic, so true to volcanic reality. From its beginning, too, the new road suggests the pleasant, sinuous charm of the broad way which does not lead to Heaven. Soon after leaving the hotel it plunges into low woods and winds among trees and clumps of ferns, giving every now and then wonderful glimpses of the crater and of the superb mountain beyond. Along its edges grow little ohelo bushes, spangled with their refreshing fruit, the taste of blueberries but the size of small grapes, canary yellow, or pink, or carmine in colour. After about a mile and a half the road reaches the brink of Kilaueaiki, "Little Kilauea," a small extinct crater about half a mile across and 700 feet deep, with walls that are very precipitous, but covered with shrubbery and ferns and with a floor similar to that of the great crater. Its sides are lowest toward Kilauea, with which it seems almost to have been connected. A steep path leads down to the floor, a path almost perpendicular in places, but interesting and to be recommended for good climbers. This unexpected little crater is very beautiful, in looks much more what one would expect a volcano to be than is Kilauea itself. The road then circles closely the

east bank of Kilaueaiki and turns westward through sparse growth toward the great crater. Before reaching the long spur down which it runs to the lake of fire, however, it passes another interesting little dead crater, Keanakakoe, "the cave for cutting adzes," only about 400 feet deep and with a floor jet-black and polished, as smooth as the floor of a ballroom. When this pit ceased to be active the lava must have been at intense heat and therefore very liquid, so that, as it cooled, the surface was left without a ripple, with hardly a crack—none more than an inch wide—and as hard and glassy as obsidian. It was this brittle, impermeable rock, found also in the crater of the same name at the summit of Mauna Kea—that the Hawaiians used to make into weapons and agricultural implements. Even to-day the floor of the crater is strewn with half-finished axes and picks. The descent into Kilauea is easy, and the road continues across the hard lava floor almost to the edge of Halemaumau.

The whole vast floor of Kilauea is well worth exploring by daylight, but to one unaccustomed to surface indications it is safer to take a guide, as the crust in places is thin, and to break through might mean serious cuts on the sharp edges of the lava, in addition to the possibility of disaster, since one can never be sure in the crater of an active volcano as to what may be underneath

any particular spot. The edges of the floor are interesting where the molten lava has piled up against the sides and then, cooling, has shrunk away, looking now like waves which have frozen into black ice on a beach. There are curious cones which not so very long ago spouted out smoke and sparks like great furnace blow-pipes. There are deep caves which can be explored with lanterns, tunnels through which flowed fiery streams and where the lava cooled in fantastic forms—caves which can be entered only for a certain distance since the heat in the ends toward Halemaumau is too great to be endured. Sometimes one finds masses of greenish lava foam, or pumice, thrown out at times of violent eruptions, a foam made of innumerable minute cells like honeycomb and as light as sea-foam. There are also in places wisps of "Pele's hair" caught on the ragged edges of rock, light brown, as delicate and as brittle as spun glass, the long filaments drawn from the drops of molten lava as they fell from the fountains and were blown away. No minerals are to be found except sulphur, and even this is not very abundant in the crater. Near the top of the west bank, which is much the highest, there are olivine crystals in the lava débris caught on the ledges, but they are imperfect and hardly worth searching for. One thing surely to remember in tramping about the floor of the crater

is not to get to leeward of the burning pit, because there the sulphur fumes are sometimes almost overpowering. Indeed, it is probably this smoke, drifting with the trade wind across the south bank of the crater, which has helped to make the desert of Kau so utterly barren and desolate. One of the glories of the whole crater in the sunlight is its colour. The lava is black, yet in places its surface is iridescent, sparkling with all the colours of the prism. So an artist, to give the real impression, uses, instead of black, his most brilliant colours.

All the land in the vicinity of Kilauea has been made into a national park reserve, an act which Congress recently passed. No other area of fifty square miles within the boundaries of the United States contains so many wonders. Even when the Volcano is not active the great pit with its smoke and steam and curiously twisted lava and the interesting phenomena of the surrounding country offer as much to see as do any of the great continental national parks. Back of the Volcano House are lovely woods, with every now and then an open glade ringed by a rank growth of ferns and of vines bearing the delicious little scarlet thimble-berries which grow wild all through the region. A few miles through these woods leads one to a splendid koa forest and to the mill of the Hawaiian Lumber Company, where

the koa is sawed into boards and shipped away. The trees in this forest are very old, as can be seen by their huge knotted trunks and their twisted limbs. They would look like ancient oaks except that on the full-grown trees the leaves are chescent-shaped and polished, and on the younger shoots lace-like, as are the leaves of the mimosa. Near here are the tree-moulds formed by some ancient lava flow. The molten lava, making its way through the forest, surrounded the great trunks of the trees, burning them finally, of course, but hardening so quickly that it recorded faithfully every line of the bark before the tree was turned into ashes. Over the flow new growth has started, but here and there are holes in the ground as round, as even, as delicately chiselled as though they were casts for future columns. Here, too, are forests of tree ferns, finer than any to be seen elsewhere, except in the jungle, because they are quite untouched. With a guide it is possible to leave the beaten trail and to wander about in the cool shade of these giant ferns, treading always the thick carpet of moss; to pull from the bases of the leaves the soft "pulu," a fine-spun fibre that is often used for making mattresses. This is by far the most thoroughly tropical growth that it is possible to see in the Islands without really forsaking the normal routes, without really getting far off into un-

visited valleys and nearly impenetrable forests.

A delightful day on horseback, some twenty-five miles of rough riding,—a motor road is building—may be spent in a visit to the Pit Craters east of Kilauea. First to be reached are The Twins, two small ancient craters, not very deep, quite filled now with vegetation, which clambers over their walls and reaches up from below toward the freer air and the sunlight. On the floors grow trees and shrubbery, so that except for the cup shape there is nothing to indicate volcanic origin. The two little craters side by side are almost identical. Next comes Puu Huluhulu, a cone crater in the top of a hill which stands boldly in the sweep of the upland plains. A clamber up its steep sides rewards one with a magnificent view of all the surrounding country. The two mountains stand out, infinitely high in the late morning, when clouds have ringed around their lower slopes, so that one is more than ever impressed, especially with the nearer dome of Mauna Loa, by far the highest mountain of its kind in the world, and certainly the most beautiful in contour. Far to the northwest is the higher peak of Mauna Kea, but in mass the mountain does not compare with its sister the stupendous mass of which seems to crowd the sky. And to east and south is the opalescent plain of the Pacific. From this cone crater one continues a short distance to the Two Orphans—

the loneliest, most neglected of little craters. They are in thick woods quite close to each other. Nothing indicates their proximity. Ferns and trees mask the approaches to them on every side. No well-defined rims, no outward slope from them, exist to indicate that they were originally cones—quite unexpectedly the ground sinks away, leaving these two queer, lost, cup-shaped depressions in the woods, startling because they are there at all, giving one an almost uncanny feeling. Even dead volcanoes do not so absolutely hide themselves. Nothing normal in nature is so almost consciously unobtrusive. One turns away as though it had been an indiscretion to invade that solitude. The woods soon become sparser, and the great plains roll onward in undulating lines beyond which one feels the sea. A low growth just obstructs the nearer view. It is, therefore, appalling when the horses stop abruptly at the edge of Makaopuhi, the last worth seeing and the most wonderful of the Pit Craters. It drops from the surface of the plain for 700 or 800 feet in sheer precipices. There a ledge, varying in width, gives a chance for trees to grow—trees that look like the toy trees of a child's garden, so far below are they. And then, in the centre, is another sheer drop of 1,200 or 1,300 feet, at the bottom of which only a bit of the crater floor is visible. Far, far below little clouds of white

steam jet from the sides to drift upward in the still air. The silence is amazing. As one looks the crater grows deeper and deeper until it seems to be the most profound chasm in the earth's crust. To right and left are endless plains; beyond the further bank the same plains sweep onward to the sea; and yet, at one's feet, one looks down and down. Perhaps some prehistoric man reversed the idea of the Tower of Babel, and instead of trying to build to heaven set out to dig a passageway to hell—and almost succeeded, as the little jets of steam bear witness. The Hawaiian name, Makaopuhi, "The Eye of the Eel," has its poetic fitness, whether it be taken literally or, as is more probable, as referring to some long since forgotten eel god. It is like a black eye, this vast pit, staring from the face of the plain into the endless sky.

The summit crater of Mauna Loa, Mokuaweo-weo, is smaller than Kilauea, but is still the second largest active volcano in the world. This crater, three and three-quarters miles long by one and one-quarter wide, is about 800 feet deep. When in action it is quite as spectacular as is Kilauea, and is often much more so, but as its activity occurs only at irregular intervals of several years, the man who happens to ascend the mountain at just the right time is very fortunate. In 1880 a man was alone at the summit. He slept in a

little tent at the edge of the crater, which was as usual dark. During the night he was waked by a dazzling light, and rushing from his shelter saw playing in the centre of the crater a jet of lava which spouted nearly a thousand feet into the air. The top of this fountain was visible from the shores of the Island and from the ocean for miles around. Such an experience comes to but few men, and the long, difficult ascent of the mountain, as well as the great altitude, will always prevent many people from visiting this volcano even during its rare eruptions.

As a general rule activity in this summit crater is preliminary to a lava flow which breaks out somewhere along the sides of the mountain. The fluid mass finds its way to the crater, and its subsequent outbreak lower down is a natural enough phenomenon when one considers the enormous weight and the consequent lateral pressure of a column of liquid lava rising nearly 14,000 feet above sea level and no one knows from how far below. The only extraordinary thing is that it does not more quickly find some weak spot in the side of the tube and break through long before reaching the summit crater. Of these lava flows there have been fourteen during the last century, ten from Mauna Loa, one from Hualalai, and two from Kilauea. Three times the town of Hilo has been threatened, the lava once coming within



Visitors Scorching Postal Cards and Letters in Lava in Kilauea
Communicating With Internal Fires

a mile. So far as is known, however, no lives have been lost in any of these flows. The lava breaks out far up on the uninhabited slopes, is very liquid, and therefore runs fast at first, but it cools rapidly, banks up, and has to break through its own embankments, so that by the time it approaches the sea it advances at the rate of only a few yards each day. So certain is this action that people who go to see the flows camp directly in front of them, moving their tents only when the lava gets near enough to be uncomfortably warm. In the rare instances when flows have reached the sea anywhere along a precipitous coast, the sight from boats, of the molten lava pouring over the cliffs and crashing in clouds of steam into the sea, has been indescribably impressive.

One of the most spectacular of these flows occurred as lately as the spring of 1926. It destroyed a good bit of grazing land, a few ranch houses and a tiny Hawaiian village at the sea, but there was no loss of life. All those in Honolulu who could get away hurried to the scene of activity. The liquid river of fire, occasional fountains spouting along its course, could be seen for miles and fully compensated the hundreds of tourists from the mainland for the temporary inactivity of Kilauea. Before the lava was cold men were at work blasting out a new automobile road across

the flow which had cut the main road from the Volcano to Kona.

Hawaii is, of course, still in the process of building. Its lavas are so liquid, so thoroughly fused, however, that the danger of explosive volcanic outbreaks is reduced to a minimum. A rancher on the uplands is wise to take account of the one chance in a million and build his house on a hill, rather than in a depression, so that no sudden flow can overwhelm him. Any man owning an upland ranch has always before him the unpleasant possibility of waking some morning to find that a section of his best pasture land is being buried under a layer of hard, sterile rock, and the knowledge that in anywhere from a thousand to ten thousand years this rock will have disintegrated into splendidly fertile soil is no immediate consolation. No man, on the contrary, ever lives in fear of his life because of the volcanoes. The people who live in the hotels near Kilauea have rightly no more thought of danger than have those who live in hotels on the Atlantic sea-board. And this "volcanic safety," as it might be called, is not merely the result of long years of immunity. It is corroborated by the highest scientific authority. The tourist, therefore, in making the trip to Kilauea need think only that he is going to see one of the most magnificent spectacles which the world affords, that he is

to have one of the most thrilling experiences of his life, with no more personal danger than he would incur in a railroad trip from Boston to New York. And if he still feels that the goddess of fire should be propitiated, let him follow the old Hawaiian custom of throwing a few ohelo berries into the burning lake as a sacrifice to Pélé—always, of course, if he dares break the National Park rule against picking fruit. Perhaps she will reward him by forcing upward a lava fountain that will spray out into a great bouquet made up of all the colours of all the gorgeous flowers of the Orient.

CHAPTER XIII

ISLAND LIFE

PEOPLE work in Hawaii. For those whose lots are cast permanently in the Islands life is not what it appears superficially to the tourist, one long, happy holiday. Nor is there here, as in so many tropical countries, a three-hour hiatus in the middle of the day, when men and women take their siesta. Hours of business are what they are in New York or Chicago, and life is planned—too completely, perhaps—along northern lines. In Honolulu men go usually to their clubs to luncheon—the Pacific, the University, or the Commercial Club—talk business and hurry back to a long afternoon in their offices. These clubs, it is fair to say, are delightfully arranged buildings with windows on all sides to catch any breeze. Of them the oldest is the Pacific, formerly the British Club, on Alakea Street. The house has broad verandas on both floors and large, cool rooms. The University Club, more especially a resort of younger men, has a pretty cottage near the Hawaiian Hotel. Its membership includes a large number of army and navy officers, graduates of West Point and Annapolis, as well as

men from American, English, and German Universities. The Commercial Club, much more inclusive in membership, is in a business block in the centre of the town. There are also, of course, as in all American cities, lodges of various orders, Masons, Odd Fellows, Elks, and Red Men. The new Y. M. C. A. building, on the corner of Hotel and Alakea Streets, has thoroughly comfortable quarters, and serves as a club for large numbers of the floating population.

While men are lunching at their clubs their wives give luncheon parties or go out to luncheons—a form of social entertainment which would seem more suited to a cold climate than to tropical midday. In the late afternoon the Country Club in Nunauu Valley, or the Pacific Tennis Court near the Executive Building, or the various athletic fields and the bathing beaches at Waikiki are the meeting places of society. At night there are dinners, dances, and bridge parties; occasionally, and much more amusing, moonlight surfing and swimming parties. There is no particular social season in Honolulu. More people are out of town in summer, but, on the other hand, that is the time when boys are at home with their friends from American colleges and they must be entertained day and night. This, therefore, is the time to see more of the distinctively Hawaiian forms of amusement. Very popular are the

“luaus,” real Hawaiian feasts with all the dishes cooked in the ancient way. The tables are spread with fern leaves instead of with linen. Forks and knives and spoons should have no place, and are only tolerated occasionally because the younger generation does not know how to use fingers with the dexterity and grace of its eighteenth century great-grandparents. Poi is, of course, the staple of the feast; poi usually served in individual bowls, however, instead of in one huge calabash into which all dip their fingers—this, a sop to modern ideas of hygiene. Real training is necessary to eat this paste gracefully, to wind it around the fingers with just the right twist and in just the right amount, and to convey it from bowl to mouth without spilling. There are fish, wrapped in sweet-smelling ti leaves and cooked in underground ovens, and sometimes raw fish, to the horror of the uninitiated. There are meats of all kinds, also baked in ti leaves; whole pigs that have been stuffed with hot stones and allowed to steam for hours in their “imus,” or underground ovens. Rarely, now, are served the little, poi-fed puppies, which, if one can forget what they are, taste like the most delicate of suckling pigs. There are always a thick, gritty, strong-tasting paste made of pounded kukui nuts and used as seasoning; sweet potatoes and yams;



Hawaiian "Pounding Poi"

baked bananas; breadfruit; a pudding made of sweet potatoes and cocoanuts, cloyingly sweet but very good; the refreshing milk of young cocoanuts to drink. There is no doubt that a taste for most of these delicacies must be the result of childhood experience, or must be carefully cultivated, but once acquired, it is a taste which is always eager to be gratified. The "malihini," or newcomer, who is afraid of unknown dishes can at least stay his hunger with fruit; oranges and bananas, alligator pears that melt in the mouth, guavas, pomegranates, perhaps the exquisitely flavoured custard-apple, and other tropical fruits. But whether he goes away empty or full, the luau will have been another memorable experience; its green tables loaded with queer food wrapped in queer brown bundles, polished calabashes of grey-blue or pink poi, the whole dimly lighted with pale golden Chinese lanterns inscribed with letters of scarlet, or brightly lighted with flaming torches. And through it all his ears will have been charmed with the mournful, poetic notes of Hawaiian songs, stealing out from behind the palm trees—music which ends always with "Aloha-oe," that lovely song of farewell, written by the Queen, which is most popular of all, most characteristic of the Hawaiian temper.

The ancient dances, or "hulas," are not as

often seen, both because the art of dancing is being lost and because many of the dances, in the motions which make them up and in the words which accompany them, are, from a civilised point of view, indecent. Some of them are occasionally given in an expurgated form at the vaudeville theatres or certain selected dances, as entertainment after private "luaus," and no opportunity to see them should be neglected. They are often marvellously graceful—more so than are the Arab dances—and with the monotonous beat of their musical accompaniment are very poetical and quite in a class by themselves.

Of good theatres the Islands are destitute. An occasional series of mediocre performances at some theatre in Honolulu brings out the whole population. The "movies" are as popular as on the mainland and show as good films. Of interest to tourists who have never been in the Orient, however, there are the Chinese and Japanese theatres with their interminably long plays, often gorgeously costumed and, probably, well acted. Nor is there, naturally, much opportunity to hear good professional musicians, although passing artists of note usually give concerts during their short stay in port. There are, of course, the military bands, and the Hawaiian Band gives excellent concerts two or three times a week in the public parks.

This band, organised in 1874 as the Royal Hawaiian Band, under Mr. Berger, who was long its leader, is one of the best in existence, and has won many prizes in international competitions. For the tourist, this theatrical and musical lack will not be annoying, but to residents of the Islands it is a real deprivation.

In appreciation of art Honolulu stands midway between the older cities of the eastern United States and the mushroom towns of the West. A few good collections of pictures are being formed. One artist at least, D. Howard Hitchcock, knows how to paint well, and interprets Island scenery in a really masterly way. The city needs desperately a really good architect, one who will adapt his houses to the climate and to the natural surroundings, whose knowledge does not cease with the French and the Elizabethan and the Old Colonial learned in eastern schools. Many of the more recent houses—preeminently that of Mrs. C. M. Cooke on the lower slopes of Tantalus—show the first real attempt to adapt the architecture to the climate. Another example is the museum which Mrs. Cooke is building on Beretania Street. It will eventually house her fine collection of Oriental art and will contain rooms for lectures, concerts and art classes. Architecturally it is an interesting experiment, a low building with arcades and

patios which is nevertheless neither Spanish nor Italian but will look, if this is possible, indigenous. The Outdoor Circle has done admirable work in making the city more attractive. It has made and carried out plans of planting which have already resulted in beautiful streets throughout the town. Here, too, however, there is need of the leadership of one who has absorbed and understands the secret of the beauty of older tropical civilisations. It would be a tragedy indeed if Honolulu should emerge from the hands of its earnest tutors with the formal and deadly neatness of a Pasadena.

For the women of the place housekeeping is none of the easiest. Servants are all Orientals, admirable as far as they go, but with inevitable limitations. The Chinese are faithful, good cooks, and immaculately clean in their work. They are in general preferred to the Japanese, even though during the Chinese New Year, for three days in January or February, they all depart on their annual holiday. During these days no bribe could make them work. They also at that time have the habit of giving to the families for whom they work expensive and usually hideous presents, which must be prominently displayed for months after. An amusing part of the Chinese New Year is the necessity for men of calling on all

the Chinese merchants of their acquaintance—ceremonial calls where they are regaled with queer, cloying sweetmeats and sweet drinks. The Japanese are filling the ranks now as house-servants, since under United States immigration laws the Chinese population is gradually dwindling. They are far less reliable, but are often excellent cooks, and Japanese maids in their bright kimono^s are picturesque about the house. They can be taught almost anything, and once taught never forget, but unfortunately the knowledge acquired is often of the parrot variety. For example, a lady gave a luncheon and, before the guests arrived, showed her new Japanese maid exactly how to serve each course and what plates to use. The following week she gave another luncheon, exactly like the first, but omitting one course. Her Japanese maid served it perfectly, except that when the time arrived for the course which was left out she brought in all the plates and then carefully removed them, empty. The extreme literalness of both Japanese and Chinese is also often disconcerting. A Chinese cook had recently been converted to Christianity. Just before dinner the lady of the house asked him whether everything had come. He said that the salad had been forgotten, but that, as he had prayed for it, he was sure it would come in time.

Such incidents as these make one realise that perfect civility and absolute obedience are not the only requisites of an ideal servant.

As to outdoor sports there is enough to satisfy the keenest. Aside from the surf-riding, the bathing is excellent all along the shores, and at Waikiki, where there is no undertow, where the bottom is of softest sand, where the waves are never large enough to be dangerous, but always to give motion to the water, it is ideal. Two rival boat clubs arrange for rowing and paddling races in Honolulu harbour. Sailboats dot the waters of Pearl Harbour, and the larger yachts cruise about outside. At the Country Club there is a good golf course. Everywhere are tennis courts. At all times of the year there are baseball and football games to watch. Saddle horses can be procured at any of the stables, and most people ride. Perhaps the most popular sport is polo, and at Moanalua or in Kapiolau Park can be seen as exciting matches as anywhere on the continent. Altogether it is a climate which calls one into the open, and everything has been done to make outdoor life attractive.

As to dress, people get along with just about what they wear in northern countries, except that white linen is much more in evidence. Duck trousers and even white suits are worn by men at all times, and women dress as much as possible

in muslins, and linen, or light silk suits. Rain-coats are essential, since at any time a trade wind shower may drift across the mountains—a shower which really wets so little that one's clothes dry in a few minutes in the sunshine, but which seems important while it lasts.

The tourist whose main object is to buy—and there are many such—will find Honolulu most unsatisfactory if he is hunting for really good things. The American shops are much like those on the mainland and have much the same articles to sell, but in a more limited selection. The Oriental shops are interesting, but have, after all, not as much of the best as do those in San Francisco. There are, of course, shops which sell Hawaiian curiosities, most of them things which few people except “curio” hunters would care to own. Old calabashes, which are often wonderful in colour and texture, are becoming hard to find, and are, therefore, very expensive. Those which were formerly the property of chiefs have a slight ridge running around the bowl, a ridge not really noticeable to sight, but only to the touch. These bowls are not intrinsically better than others, but have perhaps a slight added interest. Many of the modern calabashes, less expensive because not laboriously chipped out by hand, but turned by machinery, are beautiful because of the colour of the koa, or, still finer, of

the rare kou, from which they are made. It is possible to find koa furniture also, but this is usually unattractive in shape. The best way is to have chairs or tables made of good pieces of the wood and copied from old models. It is still possible to find good pieces of tapa, in different shades of rich brown, the brighter colours usually coming from the islands of the South Pacific. There are strings of tiny white Niihau shells and of the delicious smelling mokihana berries that keep their perfume for years. Old necklaces of golden, stained walrus ivory are very rare and very expensive, as are the beautiful yellow feather leis of which the ancient royal cloaks and helmets were made. Imitation leis of dyed feathers are everywhere. There are fans of all kinds, the lightest made of woven bamboo, not distinctively Hawaiian, the best and most durable of cocoanut leaves. There are all sorts of mats, the finest made of the Niihau reed, the best so fine that they can be crushed in the hand as though made of the softest wool. But most of these things are modern—Hawaii has no great ancient art which it lies in the province of the enlightened tourist to discover. There are no pictures, no pieces of wonderful old pottery to be unearthed, as they were a few years ago in the Orient, because such things were not a part of Hawaiian life.

Hawaii is, as yet, a place with but few literary

associations. The early voyagers touch on it. There are several old histories of the Islands, of which that by Jarves, now very rare, is probably the best. Books of travel often devote to them an inaccurate chapter or two. Mark Twain has been amusing about the Islands, as he has about everything else, but his constitutional spirit of banter did not prevent him from being deeply impressed with the Hawaiian charm. Robert Louis Stevenson more than once stayed in Honolulu for several months, lay in his hammock under the hau trees of Waikiki, smoked his cigarettes, talked, and wrote a little. His letters tell of the place, and he laid the scene of one rather un-Hawaiian story, the "Bottle Imp," in Hawaii, and it was to a good old "missionary" citizen that his famous letter to Dr. Hyde was addressed. Pity it is for Hawaii that he did not write of it as he did of Samoa. His step-daughter, Mrs. Strong, has written a novel, "The Girl from Home," which gives a good picture of life in Honolulu before the American occupation. Very recently a belated interest is being taken in the poetical legends of the place, and valuable as well as keenly interesting books have been published, "Myths and Legends of Hawaii" being the most complete. The *Hawaiian Annual*, published by Thrum, in Honolulu, prints every year an English translation of one or two of these de-

lightful old legends. Much scientific work is also being done, most of it under the direct guidance of the Bishop Museum, in the study of ancient Hawaiian life and religion. And it is high time that this work should be accomplished, since the Hawaiian race is rapidly passing and the older generations, who have kept traditions pure, are almost gone. All is important and most, even to the layman, is interesting.

There has been no poet of Hawaii. No ancient bard stands out preëminent, and indeed, most of the "meles" have grown up through natural accretion through the centuries and are rightly anonymous. These songs, too, should all be translated, although no translation could perpetuate the peculiar rhythm of the originals. They are full of repetitions, many of them epic in interest if not in form, yet with all their crudities they contain strains of real poetry, images that linger in memory because of their vivid simplicity, that recall the early poetical speech of older lands. And to-day there is much to touch the imagination of a poet, should one arise. Many of the printed legends are poetry in all but form. Nature in its most sensuously beautiful aspects seeks poetical interpretation. There is material for many a solemn poem in the slow tragedy of the dying, lovable, Hawaiian people; for many a gay lyric in the swish of the waves under the

prow of the swift canoes; of expression in words of the sad, passionate music that sobs on moonlight nights to the accompaniment of the waves at Waikiki. But the poet of Hawaii is still to come.

Because of this lack of literature there is no way to get any permanent impression of the charm of Hawaii except by a visit. Its history one can read and can appreciate if one is able to adopt, in the reading, a sympathetic point of view. The fact that thoroughly American ideals pervade all phases of Island industry, of modes of living, and of social intercourse may be accepted and theoretically believed. But the Hawaiian flavour, with which these ideals are subtly impregnated and that insensibly affects all who have lived there, is something indescribable, something which seems to emanate from the misty hills, the whispering waters, the exquisite vegetation, the low voices of the people. All this may be grasped only through the senses. The eyes must see from the shores at Waikiki the bright carpet of water beyond which Diamond Head so proudly stands at the gateway of the world beyond. The ears must catch the melody of Hawaiian song and the swish of the wind in the palms. The scent of stephanotis and plumarina and ginger must strike one as it steals through the hibiscus hedges around secluded gar-

dens. The whole body must respond to the tender caress of trade winds that have blown across a thousand miles of warm ocean. Only this is full knowledge—and the sense of this no words can convey.

And after happy weeks there comes the parting—the good-byes on the ship's deck, for no tourist stays long in Honolulu without making friends. Even this is different from other partings. On the dock is the band, playing well-known tunes and, last of all, "Aloha-oe"—the last "aloha," the most familiar of Hawaiian words, which means "greeting" and "good-bye" and "love" and "best wishes for all happiness," according to its intonation. On the deck the departing passengers are covered with leis, with wreaths of flowers, one or two from every friend—red carnations, yellow ginger, green, sweet-smelling "maile" from the mountains, and—alas for these degenerate days—many paper imitations. And as the ship pulls slowly away these leis, some of them, are thrown back to those who are left behind, last messages to new-found friends. The crowd grows indistinct, is only a coloured line against the black background of warehouses. As the ship gains headway the hills rise once more behind the little city. Once more there is the beautiful panorama of gleaming, multi-coloured water and of bright mountains with the narrow green plain between.



Hawaiian Lei and Flower Sellers, Honolulu

Diamond Head draws back, and as the ship takes the waves of the open Pacific one knows that Hawaii, with all its loveliness, its stupendous mountains, its thrilling volcanoes, is only a happy memory—a place to love, and a place to be proud of since America has made it a land of prosperity, and happiness, and liberty.

APPENDIX

I

HOTELS

Oahu

HONOLULU:

Royal Hawaiian Hotel. Waikiki.

This hotel, which is large and with all modern conveniences, will be completed early in 1927.

Alexander Young Hotel. Bishop Street.
(E. P.) From \$2.50 per day.

Moana Hotel. Waikiki. (A. P.) From
\$6.00 per day.

Halekulani. Waikiki. (A. P.) From \$5.00
per day.

(This is a cottage hotel agreeable for a prolonged stay.)

The Pleasanton. Wilder Avenue. (A. P.)
From \$6.50 per day.

In Honolulu there are many smaller hotels and boarding houses with lower rates than those quoted above. *Tourfax*, a monthly bulletin, issued by the Hawaiian Tourist Bureau, contains full lists and the latest information. In order to get the trade winds rooms facing the mountains should be secured in all hotels.

WAIALUA:

Haleiwa Hotel. (A. P.) From \$6.50 per day.

Kauai

LIHUE: Fairview Hotel. (A. P.) \$3.00 per day.

HANALEI: Deverill's Hotel. (A. P.) \$3.00 per day.

WAIMEA: Bay View Hotel. (A. P.) \$2.50 per day.

Maui

WAILUKU: Maui Hotel. (A. P.) \$3.00 per day.

IAO VALLEY: Kapaniwai Hotel (annex to Maui Hotel). (A. P.) \$3.00 per day.

LAHAINA: Pioneer Hotel. (A. P.) \$2.50 per day.

Hawaii

HILO: Hilo Hotel. (A. P.) \$5.00 per day.

KILAUEA: Volcano House. (A. P.) From \$5.00 per day.

Crater Hotel. (A. P.) Lower rates than the Volcano House.

Comfortable rooms with board at reasonable rates also at Waiohinu, Kailua, Waimea, Kohala, Laupahoehoe, and Honokaa.

II

AUTOMOBILE RATES

Standard seven passenger automobiles \$4.00 per hour or by the week \$125.00 and up. Cars without drivers about \$50.00 per week. Trip around the Island from Honolulu \$5.00 per person in party of six. There are special scheduled rates which will be given by all hotels and are registered in *Tourfax* for various long and short trips in and near Honolulu.

Other Islands

There are fixed prices for all trips, whether by motor, private carriage, or stage. Full information may be obtained at the offices of the Hawaii Promotion Committee, Young Building, Honolulu.

III

A NOTE ON THE HAWAIIAN LANGUAGE

The Hawaiian alphabet contains only twelve letters, five vowels and seven consonants: a, e, i, o, u, h, k, l, m, n, p, and w. No distinction is

made between the sounds k and t, the latter being preferred in poetry, nor between l and r, which occurs only in dialect variations. W is often pronounced like v when occurring between vowels.

The vowels are sounded as in Italian, that is, a as in *father*, e as in *they*, i as in *machine*, o as in *note*, u as oo in *moon*. Each vowel is distinctly pronounced except in the case of the diphthongs, ai as in the English ejaculation *ay!* and au as in the English word *loud*. Thus Kaaawa, a valley on the windward side of Oahu, is Ká-á-á-va.

The accent is almost always on the penult, as in Ha-wái-i.

There are very few words in the language, every one being forced to assume different meanings as occasion requires. As the language is highly inflected, however, it is difficult to speak accurately, and with the general introduction of English even the natives are becoming slovenly in its use.

Certain Hawaiian words have come into common usage and will be met by all tourists. These words are as follows:

Akamai, clever.

Aloha, greeting, love.

Aloha oe, farewell.

Haole, foreigner.

Lanai, piazza.

Lei, wreath.

Mahope, by and by.

Makai, toward the sea.

<i>Heiau</i> , native temple.	<i>Mauka</i> , toward the
<i>Hikie</i> , large couch.	mountains.
<i>Hula</i> , native dance.	<i>Malihine</i> , stranger.
<i>Huhu</i> , angry.	<i>Mele</i> , Hawaiian song.
<i>Kulikuli</i> , keep still.	<i>Maikai</i> , good.
<i>Kahuna</i> , native priest	<i>Pali</i> , cliff.
or "medicine man."	<i>Pau</i> , finished.
<i>Kamaaina</i> , old-time res-	<i>Pilikia</i> , trouble of any
ident.	kind.
<i>Kanaka</i> , man (often	<i>Poi</i> , native taro food.
used to mean the na-	<i>Wikiwiki</i> , hurry up.
tive Hawaiian).	<i>Wahine</i> , woman.

IV

GENERAL

BANKS:—Among the principal banks in Honolulu are the First National, Bank of Honolulu, Bishop & Co., and Bank of Hawaii. There are reliable banks in all the larger towns.

CABLE MESSAGES:—The rates per word between Honolulu and San Francisco are 35 cents, Manila 85 cents, Japan 96 cents, China \$1.01. The through rate to Europe is 84 cents per word. For Eastern cities the usual overland telegraph rates must be added to the cable to San Francisco, for example, 12 cents a word to New York. Wireless messages are less expensive, and there is

wireless service between the different islands and with passing ships, as well as to California.

CUSTOMS:—The same regulations as in any United States port. Passengers leaving Honolulu by any except the local steamers must have their hold luggage sealed by customs officials at the dock to avoid examination in San Francisco.

POST OFFICE:—Corner Merchant and Bethel Streets, Honolulu. The hours correspond to those of post offices on the mainland. Postage is the same as to any other part of the United States.

PHYSICIANS:—There are competent doctors and nurses in all the more important towns, and hospital facilities are good.

SHOPS IN HONOLULU:—*Photographs:* Honolulu Photo Supply Company; Gurray's; R. H. Perkins.—*Books and Stationery:* Crossroad's Book Store; Thrum's; Arleigh's.—*Curios:* Hawaiian and South Sea Island Curio Company; Island Curio Company.—*Japanese and Chinese Goods:* Japanese Bazaar; Sayagusa Shoten; Wing Wo Tai Company.

WATER:—It is safe to drink the water in Honolulu, and indeed it is nowhere dangerous except for those who find change of water harmful.

GUIDE BOOKS:—There are two small but fairly satisfactory guide books obtainable in Honolulu, one by Kinney and one by Schwank.

